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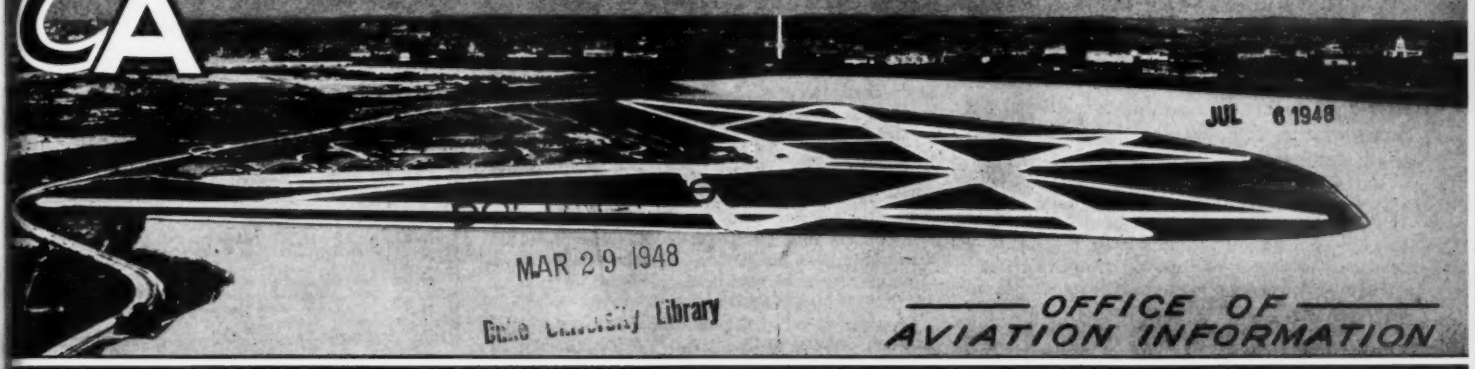

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Air Coordinating Committee Submits Its Annual Report

Making appropriate recommendations and suggestions with regard to national aviation policy, the aircraft manufacturing industry, international civil aviation, domestic air navigation, and other concerns of aviation, the Air Coordinating Committee recently presented its annual report for 1947 to President Truman. The report, which was made public in February, also contained a section on important considerations for the present year, 1948.

Prefaced by a brief introduction which explained the functions, operation, and past history of the Committee, the report then turned to a discussion of a comprehensive national aviation policy.

National Aviation Policy. — The Committee pointed out that in considering the current status of a national aviation policy, it is important to distinguish between the purposes of the President's Air Policy Commission and the Congressional Aviation Policy Board on the one hand and of the ACC on the other. The Commission and the Board were established as temporary bodies for the purpose of appraising existing aviation policies of the executive branch and of Congress in the light of total United States requirements for aviation and for air power. It has been their task to make recommendations as to changes in, or further development of, those policies. It will remain the responsibility of the executive branch and of the Congress to put such recommendations into effect, to reformulate the national aviation policy and to develop the subsidiary plans and procedures necessary to support it.

The Air Coordinating Committee, as a continuing body with the established task of harmonizing policies of the responsible executive agencies and of developing policies in areas where no agency has sole responsibility, will be called upon during 1948 to play an important role in the process of reformulation and further development. The ACC further pointed out that it has cooperated to the fullest extent with the President's Air Policy Commission, and with the Congressional Aviation Policy Board.

Aircraft Industry Report.—In October 1945, the ACC prepared a report entitled "Report on the Demobilization of the Aircraft Industry". In this report, the ACC made recommendations designed to maintain the industry at a level sufficient to satisfy the peacetime needs of the Air Forces and to permit of its rapid expansion to meet the requirements of war. The ACC found that to do this, the lowest level of production in time of peace is 3,000 military aircraft or 30,000,000 pounds of airframe weight annually.

However, in calendar year 1946, only 1,330 military planes, having a total weight of 12.3 million pounds, were produced. During 1947 it became apparent that

(*See Air Committee, page 28*)

Minimum Altitudes Raised As CAB Amends Regulations

The Civil Aeronautics Board has announced that it amended the Civil Air Regulations by raising the present minimum altitudes for visual day flight and for instrument and night operations in mountainous areas. This move was made to provide additional margins of safety for both certificated air carriers and nonscheduled or irregular air carriers.

The Board amended parts 42 and 61 of the Civil Air Regulations to raise the present minimum instrument altitudes over mountainous terrain from 1,000 feet to 2,000 feet; the minimum night Visual Flight Regulation (VFR) altitudes in unlighted areas over mountainous terrain from 1,000 to 2,000 feet; and the minimum day VFR altitudes from 500 feet to 1,000 feet.

The Board said that air carrier accidents in which aircraft have failed to clear the terrain have clearly pointed to the need for raising the minimum en route altitudes to provide for a greater margin of safety in those areas or under those conditions where miscalculations, altimeter errors, or unusual weather conditions may result in insufficient clearance at the presently established minimum altitudes.

The new regulations, the Board stated, are applicable only to scheduled and nonscheduled air carrier operations and did not apply to operation of light aircraft.

Board Suspends 11 Irregulars for Failing to Report

Letters of Registration of 11 non-certificated irregular air carriers were suspended effective February 14 by the Civil Aeronautics Board for failure to file delinquent quarterly operational reports.

In an order dated Feb. 4, 1948, the CAB advised the 39 irregular air carriers which had failed to file their reports due on January 20, that unless such reports were received by February 13, suspension would result.

In providing for the issuance of Letters of Registration to non-certificated irregular air carriers, the Board requires that such air carriers file quarterly operational reports with the CAB on or before the 20th day of every October, January, April, and July. These operational reports are to cover the period of the three preceding calendar months, showing all flights operated in air transportation during such period and stating, with respect to each such flight, the dates of departures and arrivals and the origin, destination and intermediate points served.

In listing the 39 delinquent irregular air carriers, the Board said that non-compliance by such carriers with existing reporting requirements and their continuing to engage in air transportation without filing such reports seriously impairs and interferes with the proper discharge by the Board of its functions and duties under the Civil Aeronautics Act.

Carriers Suspended.—The 11 air carriers suspended by the Board, effective February 14, follow:

Barnes Aircraft, Lumberton Municipal Airport, Lumberton, N. C.; Ben Bransom Charter Service, 3314 Wylie Drive, Dallas 9, Tex.; Coastal Air Co., 255 East Ninth Street, Hialeah, Fla.; Gulf & Western Air Lines, Inc., 8680 Lockheed Street, Houston 12, Tex.; Great Continent Air Service, Inc., Milwaukee County Airport, Milwaukee, Wis.; Ocean Air Tradeways, Ronkonkoma, Long Island, N. Y.

Inter-American Airways, Inc., P. O. Box 217, Miami Springs, Fla.; Sourdough Air Transport, Box 1639, Fairbanks, Alaska; Trans-Luxury Airlines, Inc., c/o Lincoln Hotel, Forty-fourth Street and Eighth Avenue, New York, N. Y.; Winged Cargo, Inc., 921 Land Title Building, Philadelphia 10, Pa.; Latin-American Cargo, Inc., Henry J. Preston, Pres., 218 South Fourth Street, Philadelphia, Pa.

Airport Plan for '48 Lists Many Locations Needing Development

The 1948 National Airport Plan listing 4,835 locations at which the existing and anticipated demands for air service and local requirements indicate that airports should be constructed or developed during the next three years has been announced by T. P. Wright, Administrator of Civil Aeronautics.

The plan was prepared by the CAA in accordance with the provisions of the Federal Airport Act of 1946, which requires the Administrator to revise and prepare annually a forecast of projects considered "necessary to provide a system of public airports adequate to anticipate and meet the needs of civil aeronautics."

Calls for New Airports.—Of the 4,835 locations listed in the 1948 plan, 2,745 are for completely new airports while 2,090 are existing airports listed as requiring additional improvement or development. Estimated cost of construction and development as outlined in the plan totals $1,048,500,000, of which $469,700,000 would be in Federal funds and $578,800,000 in funds provided by local sponsors.

The 1948 plan lists 502 class IV or larger airports, most of which are in existence (only 17 of them are new). Of the 575 class III airports listed, 155 are for new construction while 537 of the 1,109 class II fields listed would be new construction. The class I fields listed shows 1,752 new fields out of 2,321. In addition, 291 seaplane bases are included in the plan, of which 264 would be new, and 20 new heliports out of 37 contained in the proposal.

New Features Added.—Many new features are incorporated into the 1948 revision of the plan. In addition to the breakdown by States, which shows the name of the airport, the community served and the present and proposed class of field, the new plan contains a State-by-State tabulation of estimated costs by both Federal Government and sponsors. Planning data for each State is listed including the number of registered aircraft, existing airports and other important informational data.

Delta and PCA's Routes Are Extended by CAB

The Civil Aeronautics Board authorized extension of Pennsylvania-Central Airlines' route No. 55 and Delta Airlines' route No. 24, in a decision on the petitions involved in the so-called Boston-New York-Atlanta-New Orleans case.

PCA's route 55 was extended from its present terminal at Birmingham, Ala. to New Orleans, La. via Mobile, Ala., and the same route from Bristol, Tenn.-Va., to Atlanta, Ga., via Asheville, N. C. Delta's route 24 was extended from Meridian, Miss., to New Orleans, La., via Hattiesburg, Miss. All other applications in this case for new routes and extensions of existing routes were denied or deferred.

Single-carrier Service.—The Board pointed out in its opinion that the extension of PCA's route 55 from Birmingham to Mobile and New Orleans will provide single-carrier air transportation between the latter two cities and a number of other cities of substantial population in Ohio, Pennsylvania, and New York, and that the extension of PCA's route from Bristol and Asheville to Atlanta will give single-carrier service between these two cities and the important northern cities on PCA's system.

With reference to the extension of Delta's route, the Board said that it will provide single-carrier service between New Orleans and Cincinnati and will afford Meridian and other points on Delta's route 24 trunk-line service to New Orleans. This extension of Delta will also provide Hattiesburg with trunk-line service and will permit operation of through schedules from Fort Worth-Dallas to Atlanta via New Orleans.

Civil Plane Output Totals 15,616 Units For the Year 1947

Civil aircraft shipments for 1947 were brought to 15,616 units by December's output of 229 aircraft. The 1947 total was less than half the 1946 figure, but still almost 2½ times as many planes as were shipped in the best prewar year of 1941 when 6,844 civil aircraft came through.

Despite the sharp drop in total civil aircraft shipments, there were several encouraging developments. A trend toward planes of greater utility was evidenced by the fact that shipments of 3- and 4-place aircraft more than doubled (7,989 against 3,756). And, as a result of this trend plus the increased shipments of air carrier transport aircraft, total dollar value of civil aircraft shipments exceeded 1946 by 5 percent ($197,601,000 vs. $188,515,000).

Military aircraft shipments for December totaled 288 and ran the 1947 volume to 2,102 aircraft, 58 percent more than were shipped in 1946.

The tables which follow show the 1947 shipments by months in terms of both number of units and dollar value.

1947 Aircraft Production

(Number of Units)

Month	Civil aircraft shipments, by type			Civil total	Military total	Total civil and military
	2-place	3- and 4-place	Over 4-place			
Jan.	969	1, 176	21	2, 166	111	2, 277
Feb.	793	1, 109	12	1, 914	99	2, 013
Mar.	789	972	24	1, 785	137	1, 922
Apr.	964	1, 042	32	2, 038	105	2, 143
May	847	771	28	1, 646	94	1, 740
June	590	572	31	1, 193	139	1, 332
July	475	508	15	998	104	1, 102
Aug.	434	470	25	929	211	1, 140
Sept.	547	431	50	1, 028	323	1, 351
Oct.	390	364	48	802	239	1, 041
Nov.	245	328	42	615	252	867
Dec.	229	246	27	502	288	790
Total	7, 272	7, 989	355	15, 616	2, 102	17, 718

1947 Value of Shipments ($000)

Month	Civil aircraft and spares	Military aircraft and spares [1]	All other products [2]	Total
Jan.	$9, 622	$38, 445	$5, 144	$53, 211
Feb.	9, 501	42, 535	4, 121	56, 157
Mar.	15, 899	34, 549	4, 916	55, 364
Apr.	19, 840	33, 435	5, 231	58, 506
May	20, 425	37, 326	5, 219	62, 970
June	22, 804	64, 073	3, 781	90, 658
July	13, 838	27, 748	3, 292	44, 878
Aug.	18, 040	32, 065	3, 136	53, 241
Sept.	23, 035	37, 843	3, 025	63, 903
Oct.	24, 573	49, 489	3, 221	77, 283
Nov.	13, 728	38, 262	2, 751	54, 741
Dec.	6, 296	59, 158	4, 266	69, 720
Total	197, 601	494, 928	48, 103	740, 632

[1] Includes all man-carrying aircraft regardless of military security classification. Payments received during 1947 refer to total payments received from military customers during the month regardless of when the aircraft or parts were shipped.
[2] Includes conversions.

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DEPARTMENT OF COMMERCE
W. Averell Harriman, *Secretary*

Civil Aeronautics Administration
T. P. Wright, *Administrator*
Ben Stern, *Asst. Administrator for Aviation Information*

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CAA and CAB Releases

Copies of CAA releases may be obtained from the CAA Office of Aviation Information. CAB releases are obtainable from the Public Information Section of the Board. Both offices are located in the Department of Commerce Building, Washington 25, D. C.

Administration

New CAA Book Has Useful Data for Pilots (February 1).

Airlines Using More Planes Than Last Year CAA Reports (February 2).

Waldo Joins CAA in Program Planning Office (February 7).

Old Planes Appear on CAA's Survey of All Registered Aircraft (February 10).

CAA National Airport Plan for 1948 Announced by Wright (February 11).

Klenke Appointed Member of CAA Non-Scheduled Flying Advisory Body (February 17).

States Cooperating in Uniform Laws to Foster Civil Aviation (February 25).

Board

Hearing date of February 2, 1948, set for Eastern Airlines' Accident near Oxon Hill, Md. (CAB–48–7).

Boston-New York-Atlanta-New Orleans Case (CAB 49–8).

Mileage and Traffic Statistics for October 1947. (CAB–48–9).

Order Suspending Letters of Registration (CAB 48–10).

Minimum Altitudes Raised (CAB 48–11).

Hearing Date of February 13, 1948, Set for Air Transport Carrier Accident Near Coalinga, Calif. (CAB–48–12).

Supplemental Opinion in Great Lakes Case (CAB 48–13).

Letters of Registration Suspended (CAB 48–14).

Arizona-New Mexico Case (CAB 48–15).

Higher Standards of Safety Proposed for Non-Scheduled Air Carriers (CAB–48–16).

NACA Technical Reports on Sale

Technical Reports of the National Advisory Commitee for Aeronautics issued for the years 1941–44, inclusive, may now be purchased by the general public. Orders for these reports, which are no longer classified as restricted, may be placed with the Superintendent of Documents, United States Government Printing Office, Washington 25, D. C., at the subscription price of $3 per year domestic and $4.25 per year foreign.

CAB Decision Provides Improved Air Service In Ariz.-N. Mex. Area

The Civil Aeronautics Board has announced its decision in the Arizona-New Mexico case in which it authorized the operation of one new feeder air carrier, amended the certificate of an existing feeder air line, and amended the certificates of two trunk air lines so as to provide improved and additional air service in the Arizona-New Mexico area.

In the same order, the Board also instituted an investigation to determine whether the certificates of public convenience and necessity of one trunk air carrier and two feeder air carriers should be amended to authorize certain additional services within the Arizona-New Mexico region.

Will Provide Service for 3 Years.—Arizona Airways, Inc., was designated by the Board to provide air transportation of passengers, property and mail for a period of 3 years (*a*) between the terminal point Phoenix, the intermediate point Ajo, and the terminal point Yuma, Ariz., (*b*) between the terminal point Phoenix, the intermediate points Superior, Globe/Miami, Safford, Clifton/Morenci, Ariz., and Lordsburg, Silver City/Hurley, Deming, and Las Cruces, N. Mex., and the terminal point El Paso, Tex., (*c*) between the terminal point Phoenix, the intermediate points Casa Grande, Tucson, Nogales, and Bisbee, and the terminal point Douglas, Ariz., (*d*) between the terminal point Phoenix, the intermediate points Prescott, and Flagstaff, and the terminal point Winslow, Ariz. The issuance of a certificate of convenience and necessity to Arizona Airways was withheld pending an appropriate showing as to the availability of airports, and a satisfactory showing to the Board with respect to Arizona Airways' financial structure.

Pioneer Air Lines, Inc.'s temporary certificate of public convenience and necessity for route No. 64 was ordered amended by the Board, after appropriate showing with respect to airports, so as to extend that route (*a*) between the terminal point Amarillo, Tex., the intermediate points Clovis, Roswell, Alamagordo, and Las Cruces, N. Mex., and the terminal point El Paso, Tex., and (*b*) between the terminal point Lubbock, Tex., the intermediate points Clovis, Tucumcari, Las Vegas, and Santa Fe, and the terminal point Albuquerque, N. Mex.

American Airlines Inc.'s certificate of public convenience and necessity for route No. 4 was amended by the Board to change the restriction preventing that carrier from engaging in local transportation between San Diego, and Los Angeles, Calif., to a restriction that San Diego shall be served only on flights originating or terminating at Phoenix, Ariz., or a point east thereof.

Transcontinental & Western Air, Inc.'s certificate of public convenience and necessity for route No. 2 was amended by the Board to include Santa Fe, N. Mex., as an intermediate point.

Investigation Instituted.—The Board ordered an investigation instituted, under section 401 (h) of the Act, to determine whether the certificate of public convenience and necessity of Continental Air Lines, Inc., for route No. 29, should be amended so as to authorize service to Socorro, Hot Springs, and Las Cruces, N. Mex., as intermediate points between Albuquerque, N. Mex., and El Paso, Tex., and whether the certificate of Pioneer Air Lines, Inc., for route No. 64, or the certificate of Arizona Airways, Inc., authorized by the Board (subject to further showing) should be amended to authorize a route between Albuquerque and El Paso, via those intermediate points.

Admiral Price Appointed Member of NACA

Vice Adm. John Dale Price, Deputy Chief of Naval Operations (Air), has been appointed a member of the National Advisory Committee for Aeronautics, succeeding Vice Admiral Duncan.

Vice Admiral Price is a graduate of the United States Naval Academy and has had a career of active and distinguished service in the Navy. A naval pilot and holder of the Distinguished Flying Cross, he has been in naval aviation since 1920. He played an active part in early carrier aviation, setting flight endurance records in 1924 and performing outstanding service in experimental work aboard the carrier U. S. S. *Langley*.

Brilliant War Record.—In the last war, as Commander of Fleet Air Wing Two, Vice Admiral Price received the D. F. C. for brilliant and courageous attacks on Wake Island. In addition to the D. F. C., he holds the Navy Cross and the Legion of Merit with Gold Star. The Gold Star was awarded in place of a second Legion of Merit, in recognition of his services as Commandant of the Naval Operating Base, Okinawa, from July 1945 to February 1946. He returned to the United States in March of 1946. Other awards held by Vice Admiral Price are: The Mexican Service Medal, Victory Medal, Yangtze Service Medal, World War II Victory Medal, Order of the Crown Cavaliere Ufficiale (for the Balbo flight Dec. 17, 1930, to Jan. 15, 1931).

In taking his place on the NACA, Vice Admiral Price becomes a member of the Federal agency responsible for scientific aeronautical research.

Congress' Interest in Aviation Started 126 Years Ago

One hundred and twenty-six years ago this month, aeronautics was given congressional consideration for the first time, when a petition was introduced on behalf of James Bennett.

Presented in the House by Mr. Milnor, the petition requested that the Congress grant Bennett and his heirs the sole rights for 40 years of "steering flying machines through that portion of earth's atmosphere which presses on the United States, or so far as their jurisdiction may extend." This petition brought about the appointment of the first Congressional aeronautical committee.

In the years that followed, numerous petitions and bills were introduced, usually calling for appropriations to enable inventors to carry on experiments and construct flying machines.

The first known aeronautical bill was introduced by Representative Dunham in 1888. It provided for an appropriation of $150,000 to enable A. de Baussett to build an airship to convey passengers and freight through the air. The project, described by de Baussett in a pamphlet entitled "Aerial Navigation", called for an enormous steel cylinder with conical ends. From this the air was to be exhausted and the ship was to be driven by an electric motor.

The first general bill was introduced in December of 1893 by Senator Cockrell. It provided for the payment of $100,000 to any inventor who could construct, before January 1900, "a vessel which would operate safely in air at not less than 30 miles per hour and carry passengers and freight weighing at least 5 tons."

In February 1895, the Senate Committee on Interstate Commerce reported this bill without recommendation owing to the depleted condition of the Treasury.

None of these bills was ever enacted and it was not until 1911 that money was voted by Congress for aeronautical purposes.

Pilot Certificates Issued During 1947 Increased 15% Over Previous Yr.

Despite a sharp decline in the commercial pilot category, total pilot certificates issued in 1947 ran well ahead of last year. In the 12 months ended December 31, 1947, 319,610 pilot certificates (including students) were issued—41,467 or 15 percent more than were issued in 1946.

Nearly 193,000 students received licenses this year, compared to 173,400 in 1946. Private pilot licenses advanced from 62,581 to 120,017. The commercial category declined—6,668 certificates were issued against 42,130—since the great bulk of those pilots who were able to take advantage of the opportunity to get commercial ratings, based on their wartime flying experience, did so in 1946.

The monthly figures on pilot certificate issuances for 1947 and 1946 show:

1947	*Total*	*Student*	*Private*	*Commercial*
January	19,018	11,200	7,433	385
February	20,006	12,881	6,692	433
March	22,589	14,436	7,671	482
April	26,814	17,659	8,450	705
May	29,196	18,793	9,776	627
June	30,796	18,620	11,411	765
July	36,589	23,263	12,541	785
August	29,786	17,549	11,737	500
September	34,431	20,339	13,441	651
October	32,435	18,204	13,687	544
November	17,526	9,082	8,051	393
December	20,424	10,899	9,127	398
1947 totals	319,610	192,925	120,017	6,668
1946				
January	15,366	4,945	2,039	8,382
February	12,321	5,483	1,900	4,938
March	14,056	7,349	2,070	4,637
April	20,733	12,599	3,105	5,029
May	23,272	15,935	3,318	4,019
June	25,374	17,934	4,254	3,186
July	31,403	21,935	6,192	3,276
August	30,129	20,467	7,210	2,452
September	28,251	18,131	8,160	1,960
October	32,612	22,193	8,819	1,600
November	23,113	14,228	7,418	1,467
December	21,513	12,233	8,096	1,184
1946 Totals	278,143	173,432	62,581	42,130

RTCA Technical Documents Made Available to Public

The release of official RTCA documents to interested United States organizations, agencies and individuals has been authorized by the Executive Committee of the Radio Technical Commission for Aeronautics. Requests for documents should be directed to the RTCA Secretariat, Room 597, Department of State Building, Seventeenth and Pennsylvania Avenue, NW., Washington 25, D. C.

The RTCA documents currently available follow:

Constitution and By-Laws: 16–47/DO–1.

Engineering Study of Factors Affecting the Choice of Frequencies for DME: 30–47/DO–2.

Radio Equipment Form Factors (with supplement): 46–47/EC/14.

Study of Aeronautical Frequency Allocations above 400 Mc: 55–47/DO–3.

Equipment Standards for Airdrame Control Stations: 66–47/DO–4.

Reduction of Precipitation Static Interference in Aircraft: 68–47/DO–5.

Standardization of Airborne Glide-Path Receiver Adjustment: 106–47/DO–6.

Report of RTCA Appearance before the President's Air Policy Commission: 112–47/RE–50.

Implementation of Frequency Assignment Plan for VHF Airport Control Stations: 122–47/DO–7.

Air Sea Distress Communications: 139–47/DO–8.

As other RTCA documents are authorized for release, appropriate notice of their availability will be reported.

Air Coordinating Committee's Annual Report For 1947 is Submitted to President Truman

(*Continued from page 25*)

scheduled deliveries would not be much above the previous year, while funds requested for military procurement in fiscal 1948 would provide only half of the production recommended by the ACC in its 1945 report. Moreover, the production of commercial and personal aircraft could not be expected to show regular progressive increases each year, the heavy immediate postwar demand being met in large part by war surplus planes. Other factors also affected commercial aircraft production, including the grounding of the Constellations and DC-6's. The ACC also found that the decline in production and the paucity of orders were forcing the manufacturing companies to drastically reduce their engineering and technical organizations, the replacement of which would be difficult, if not impossible.

Deeply concerned over the gravity of this situation, the ACC took two steps which it hoped would initiate corrective measures. It wrote to the President, suggesting the establishment of a board to make a thorough investigation with recommendations; and at the same time it undertook an extensive study of the aircraft industry, with a view to bringing its 1945 report up to date in the light of current conditions.

New Report Data.—The revised ACC report on the aircraft manufacturing industry will not be simply a reiteration of the conclusions and recommendations of the President's Air Policy Commission and the Congressional Aviation Policy Board. Rather, it will deal with the specific technical, financial and procurement problems involved in the maintenance of an industry capable of rapid expansion in time of emergency. It will provide engineering and statistical yardsticks for measuring the industry's capability in this respect. Like its predecessor report, it will provide in some detail the subsidiary policies and actions which must be pursued by the Federal Government to provide expansibility at minimum cost and maximum efficiency.

Since the economic strength and stability of the aircraft manufacturing industry will depend in part upon the volume of aircraft produced to meet the demand for commercial and personal airplanes, the ACC has instigated a study of the probable growth of the commercial air transport industry. This study, which will be incorporated into the ACC's report, will cover the probable growth of both domestic and international air transport, in relation to passengers, mail and cargo traffic; the reasonable prospect for the export market for aircraft of American manufacture; and the market potential for private aircraft and non-air-carrier commercial aircraft.

Government assistance.—The extent to which the Government should assist the aircraft manufacturing industry in the development of new types of transport aircraft, and assist the air carriers in financing the purchase of such new equipment has been given much consideration by the ACC.

If the air transportation industry is to grow to the point where it can both adequately meet the needs of commerce and also serve as a military transport reserve, new types of transport aircraft must be available to it. Because of the extremely high cost of developing new commercial-type aircraft, and the character of the market among the air carriers, it is clear that neither the manufacturing industry nor the air crariers will be able to bear any substantial part of the development cost in the immediate future. The ACC believes, therefore, that Government assistance in the development of new air transport models may be necessary in the national interest and is engaged in a study of the method by which this can be accomplished efficiently and with maximum benefit to the nation.

The present financial difficulties of many airlines have been attributed in part, at least, to the continued operation of relatively obsolescent aircraft. Existing equipment can not, in many cases, be operated at a profit; but because the airlines are operating at a loss, they can not finance the purchase of new, more economical equipment.

New Financing Media.—Several suggestions involving new financing media have been offered: The wider use of Reconstruction Finance Corporation funds; the creation of a private corporation using private and public funds; the encouragement of the equipment trust method of financing through changes in certain laws to afford secured lenders additional protection; and government purchases of aircraft and subsequent rental to the airlines.

Whether any or some of these media should be established or encouraged by the Government and whether other steps are required to facilitate the financing of new equipment is the subject of comprehensive study by the ACC.

International Aviation.—In the realm of international aviation, during the calendar year 1947, the ACC prepared approximately 150 statements of position or instructions on matters before ICAO; 17 statements of position for use of delegations to divisional, regional, and other conferences and meetings; and 10 comments on the Final Reports of ICAO conferences and meetings. In addition, over 700 specific requests for information received from ICAO and the United States representatives, were answered.

The ACC has continued its study with regard to the status of civil aviation in Germany and Japan. Recommendations developed by the Committee have been adopted as United States policy with respect to Germany, and have been submitted to the Far Eastern Commission as the basis for a proposed directive from that body governing civil aviation in Japan during the occupation period. The policies recommended for the two areas are substantially the same.

Recognizing the dangerous military potential inherent in a highly developed civil air transport system, such as existed in Germany and Japan before the war, the ACC agreed that for the present there should be no separate domestic air transport systems in Germany or Japan, whether operated by nationals thereof or by others. If air services are required within those countries in order to accomplish objectives of the occupation, the Committee recommended that they be provided by the occupation authorities or, under certain conditions, by international civil air carriers of the United States and of friendly countries as an integral part of their international services to or through the occupied areas.

Domestic Air Navigation.—In matters pertaining to domestic air navigation, the ACC has felt that one of its most important tasks is the development of a coordinated policy, insofar as possible, with respect to the systems to be used by both civil and military aircraft. Accordingly, early in 1947, the ACC asked the Radio Technical Commission for Aeronautics to prepare recommendations with respect to the problems of air traffic control, the solution of which must be reached before air transportation can achieve the regularity and volume necessary to keep pace with the steadily increasing traffic demands.

In the meantime, the ACC, through its Technical Division, undertook to list types of equipment upon which military and civil interests could agree. Unanimous agreement was reached immediately upon certain items, including approach lighting and surveillance radar. The Division is seeking agreement on standardization of electronic aids to approach and landing and certain short-range navigation facilities.

Other phases of domestic air navigation, in which the Committee took active part, have dealt with air space, accident analysis, and search and rescue.

The Airspace Subcommittee of the ACC, during 1947, acted on 2,436 cases relating to the control of air traffic and the use of the air space at specific points throughout the United States and its several territories and possessions. A manual of standard procedure for aircraft accident analysis, which constitutes a major advance in the field of accident prevention, has been prepared by the ACC. The ACC is now considering the final report of the Search and Rescue Subcommittee which is preparing a permanent plan for the proper coordination of all the search and rescue facilities of all agencies which would meet the requirements and needs of domestic and international civil aviation, particularly the international obligations of the United States.

Aviation Meteorology.—As a result of the action of the ACC Subcommittee on Aviation Meteorology, a joint Weather Bureau-Air Force-Navy weather analysis center has been established within the United States Weather Bureau in Washington. The personnel, material and information available to all three weather services are thus made available for the improvement of meteorological service to the public in general and international and domestic aviation in particular. Other meteorological activities of the ACC are concerned with the joint Hurricane Warning Services, with headquarters in Miami; a Cloud Physics Advisory Committee, to coordinate Government participation in meteorology research in artificial production of rain; and strong recommendations to the Congress that the Coast Guard should be supported in its requests for additional appropriations to carry out the United States share of the North Atlantic Ocean Weather Station Program.

Aviation Legislation.—An important function of the Air Coordinating Committee is the coordination of the member agencies' position with respect to aviation legislation. In some instances the ACC drafts and submits proposed bills to Congress; in other cases it prepares comment on pending or proposed legislation.

During the past year, the Committee has been requested to comment upon 16 proposed and pending bills; 11 have already been commented upon and 5 more are still under study. An example of special importance was the ACC's recommendations to the Interstate and Foreign Commerce Committees of both houses that legislation not be enacted creating a "chosen instrument" or consolidated airline to undertake all United States-flag international operations. This particular recommendation was adopted by all member agencies without exception.

Considerations For 1948.—Looking into the year now upon us—1948—the Air Coordinating Committee lists four important questions which are still unresolved.

A question which must be settled in the coming year is the determination of the proper level for an aircraft manufacturing industry capable of meeting peacetime military and civil requirements and of prompt expansion to meet the country's defense needs; and determination of the best method for maintaining the industry at that level. Related to this question is that of the means by which he development and the sale of new transport aircraft can best be effected. Recommendations on these subjects are contained in the report of the Air Policy Commission and may require both executive action and new legislation. The industry report and collateral studies of the ACC should be of great help in determining the final policy.

Second, it is of great importance that in 1948, after the report of the Radio Technical Commission for Aeronautics (previously referred to) has been completed, prompt and vigorous action be taken to insure the adoption and completion with the least possible delay of a program, consistent with military requirements, to install the additional traffic control and navigational aids which are essential for increasing

(*See Air Committee, page 29*)

Nonscheduled Group Gains Klenke as Member

William H. Klenke, Jr., general sales manager of the Stinson Division, Consolidated Vultee Aircraft Corp., has accepted appointment to membership in the Civil Aeronautics Administration Nonscheduled Flying Advisory Committee, Administrator T. P. Wright has announced.

He succeeds J. W. Friedlander in membership on the Committee as representative from the CAA Third Region. Mr. Friedlander recently submitted his resignation. The new member sat with the Committee for the first time at its meeting on February 25 and 26 in Washington.

Long Aviation Experience.—Mr. Klenke was nominated for membership on the Committee by the Personal Aircraft Council of Aircraft Industries Association. His long experience in the aviation field both from a flying and business standpoint makes him well qualified to act in an advisory capacity in matters of personal flying.

A veteran of two flights to the Straits of Magellan with Dick Merrill, Klenke holds a commercial pilot certificate, instructor rating, and has logged well over 3,000 hours.

He served with the United States Marine Corps as a fighter and dive bomber pilot from 1929 to 1934, and was discharged as a captain.

Following his discharge from the Marine Corps, Klenke served with the Wright Aeronautical Corp. until 1937 in various capacities, including a 2-year stay in Washington as chief of the Flight Test Division. Later he served as sales and demonstration pilot for the Seversky Corporation for 3 years followed by acting as test pilot and engineer for Vultee Aircraft.

He holds membership in the National Aeronautics Association and the Institute of Aeronautical Sciences.

Air Carrier Permit Granted To Aerlinte Eireann Teoranta

Aerlinte Eireann Teoranta (Irish Airlines) has been granted a foreign air carrier permit by the Civil Aeronautics Board, authorizing the foreign air transportation of persons, property, and mail between the United States and Ireland. One segment of the route has its United States terminal at New York and extends to Ireland via Boston and Newfoundland; the other terminates at Chicago and includes Montreal and Newfoundland as intermediate points. The Board's decision was approved by President Truman.

The Irish air carrier hopes to inaugurate transatlantic service in March 1948 and contemplates two weekly round trips between Shannon, Ireland, and New York with intermediate stops at Gander Airport, Newfoundland, and Boston, Mass., on one trip and a single stop at Gander Airport on the other. The Irish air carrier will use American-made Lockheed Constellations, and has already made several transatlantic proving flights with its Constellation aircraft.

The Board said that: "Additional factors impelling us to conclude that the AET services are in the public interest are the community of interests that exist between Ireland and the United States, the consequent travel potentiality, and the advisability of according to an Irish instrumentality an air transportation opportunity reciprocal to the commercial entry rights that the Irish Government has granted to three United States airlines."

The Board said that the operation of the air transportation service authorized is in conformity to the terms of agreements between the United States and Ireland.

Civil Aviation Highlights

The CAA is interested in obtaining monthly data on passenger and aircraft traffic for as many scheduled air carrier terminals as possible. With the exception of the Washington National Airport (the only civil airport of its type owned and operated by the Federal Government), airports are not required to submit such monthly activity reports to the CAA. The authorities of the San Francisco and Oakland Municipal Airports have been furnishing us these data on a purely voluntary and cooperative basis. If other airport officials respond in a similar manner, we will be glad to begin publishing a separate table devoted specifically to passenger and aircraft traffic at these air carrier terminals.

	1948	*1947*	*1946*
Airports recorded with CAA, *Feb. 1*	5,815	4,566	4,083
By Type: [1]			
Commercial	2,904	1,994	1,558
Municipal	1,804	1,439	1,235
CAA intermediate	174	201	217
Military	475	765	898
All others	458	167	175
Scheduled air carrier aircraft, *Feb. 1*	969	837	534
Civil aviation production, *December*	.....	502	1,963
2-place models	.....	229	1,088
3- and 4-place models	.....	246	861
Over 4-place models	.....	27	14
Certificates approved, *December*			
Student pilots	.....	10,899	12,233
Private pilots	.....	9,127	8,096
Commercial pilots	.....	398	1,184
Airline transport pilots	.....	83	20
Mechanics [2]	.....	732	651
Ground instructors [2]	.....	197	264
Flight instructor ratings	.....	335	527
Instrument ratings	.....	129	413
Traffic control activity, *December*			
Aircraft operations at airport towers	.....	1,227,626	1,036,431
Fixed postings at airway centers	.....	845,803	781,546
Washington National Airport operations, *January*			
Scheduled air carrier:			
Passengers departing	32,664	32,885	31,803
Passengers arriving	33,021	29,959	32,393
Aircraft arrivals and departures	7,577	7,123	7,055
Aircraft arrivals and departures other than scheduled air carrier	2,662	4,084	4,438
San Francisco municipal airport operations, *December*			
Scheduled air carrier:			
Passengers departing	.....	33,930	31,655
Passengers arriving	.....	31,087	31,064
Aircraft arrivals and departures	.....	6,834	4,393
Aircraft arrivals and departures other than scheduled air carrier	.....	4,684	6,290
Oakland municipal airport operations, *December*			
Scheduled air carrier:			
Passengers departing	.....	3,995	3,959
Passengers arriving	.....	3,666	3,364
Aircraft arrivals and departures	.....	3,034	2,122
Aircraft arrivals and departures other than scheduled air carrier	.....	14,573	5,899

[1] Airport type definitions: Commercial—Public use and public services, privately owned and operated. Municipal—Public use and public services, municipally owned and/or operated. CAA Intermediate—Public emergency use, no services, CAA operated. Military—Public restricted, military operated. All others—(*a*) Public emergency use only, no public services, privately owned for personal use; (*b*) public emergency use only, no public services, Government-owned Forest Service, etc.

[2] Number of original certificates issued not including additional ratings approved for persons already holding certificates.

Air Committee Report (*Continued from previous page*)

the regularity and capacity of the domestic air transport system.

Cooperation With ICAO.—Third, it is essential to the success of our international air transport system that the United States continue its full cooperation with and participation in ICAO. As emphasis shifts from the determination of basic policies and standards governing international civil aviation to the implementation of such policies and enforcement of such standards by the member countries, effective, flexible machinery must be provided in the United States for the fullest possible compliance with the requirements of the Convention and with ICAO decisions.

Finally, it is of utmost importance that Federal policies and the Federal machinery to effectuate those policies remain continually adjusted to the requirements of total air power. Air power attains its greatest potential only when its component parts—military aviation, domestic civil aviation and international air transportation, and the aircraft manufacturing industry—are equally vigorous. These basic components are now linked by such strong bonds of common interest and mutual dependence that weakness in any one is necessarily translated into weakness in the others.

If we are to achieve balanced aviation strength at minimum cost, efficient machinery for the coordination and integration of the policies and the activities of the Federal agencies must be perfected. The Air Coordinating Committee was formalized by executive order to provide precisely this type of coordination.

Engine Sales in Dec. Show 26% Increase Over Previous Month

Engine manufacturers reported a total volume of some $29,873,000 in December, 26 percent over November. Military shipments represented 88 percent of the total dollar value for the month.

December's civil shipments totaled 685 engines valued at $1,932,000 plus $1,608,000 in spare parts compared with 819 engines worth $2,107,000 and $1,759,000 in spares for November.

Shipments to the United States military services totaled 384 engines valued at $17,249,000 plus $9,006,000 in spares. The comparable November figures were 409 engines worth $16,175,000 and $3,481,000 in spares.

The month-by-month figures on engine shipments by number and value were as follows:

1947 Engine Shipments—Number

Month	*Civil*	*Military*	*Total*
January	2, 528	334	2, 862
February	1, 765	361	2, 126
March	2, 457	438	2, 895
April	2, 472	430	2, 902
May	1, 773	387	2, 160
June	1, 002	346	1, 348
July	971	386	1, 357
August	511	436	947
September	691	426	1, 117
October	696	471	1, 167
November	819	409	1, 228
December	685	384	1, 069
Totals	16, 370	4, 808	21, 178

1947 Engine Shipments—Value ($000)

Month	*Civil Engines and Spares*	*Military Engines and Spares*	*All Other Products*	*Total*
January	10, 026	17, 348	139	27, 513
February	8, 211	14, 580	1, 098	23, 889
March	8, 014	18, 848	460	27, 322
April	9, 229	20, 037	455	29, 721
May	8, 097	22, 466	553	31, 116
June	8, 005	24, 941	218	33, 164
July	5, 258	16, 087	184	21, 529
August	3, 744	17, 838	217	21, 799
September	3, 906	22, 731	110	26, 747
October	6, 591	22, 973	167	29, 731
November	3, 866	19, 657	114	23, 637
December	3, 540	26, 255	78	29. 873
Totals	78, 487	243, 761	3, 793	326, 041

Waldo Appointed to Post In Staff Programs Office

Appointment of Richard K. Waldo as program planning officer in the Staff Programs Office of the Civil Aeronautics Administration, has been announced by T. P. Wright, Administrator.

In this post he will participate in formulating general CAA policy and in the agency's external relationships.

Before coming to the CAA, Mr. Waldo was special assistant in the Aviation Division of the State Department, specializing in matters relating to the International Civil Aviation Organization. Earlier, he was Chief of the Aviation Division's Research Section.

Prior to his State Department service, Mr. Waldo was an air transport analyst for Transcontinental and Western Air, Inc., Pan American Airways, and the Board of Economic Warfare. He also has been an economist in the Aircraft Section of the War Production Board's Statistics Division and in the Commerce Department.

Mr. Waldo is international editor of Northwestern University's Journal of Air Law and Commerce. He is a graduate of the University of Pennsylvania.

VHF in Aviation

NOTE: This is the first of a series of articles prepared by CAA to provide information in simplified form on Very High Frequency and the growing part it is playing in civil aviation.

VHF to Revolutionize Radio Aids to Air Navigation

Your home radio dial is marked off in kilocycles—about 550 to 1600. If your radio tuned lower—200 to 400 kilocycles—you would hear the low-frequency radio ranges operated by the Civil Aeronautics Administration.

You would hear not only the "dah dit" or "dit dah" of the ranges themselves, guiding pilots along the invisible airways, but you also would hear the airport towers giving directions to incoming and outgoing planes, and hourly weather broadcasts concerning conditions along the airways.

Unfortunately, you probably would hear a lot of static in addition to the aircraft transmissions. This would be especially true if there is a thunderstorm within 100 miles or so. The static, plus severe overcrowding, are the reasons that the CAA is leaving this part of the radio spectrum. The CAA is converting most of its communication and air navigation facilities to very high frequency, or VHF as it usually is called.

Above the 1600 point on your radio receiver, if you have additional short-wave bands, you will hear police calls, international broadcasts, and numerous aircraft communications. From here on up the frequency ladder, measurements are conveniently made in megacycles, which are kilocycles multiplied by 1000.

The frequencies just above the broadcast band, like those below, suffer from overcrowding and static. The frequency range from five to thirty megacycles, useful largely for international broadcasting, amateur radio communication, and extremely long range transmission, often is unreliable for short-range communication.

VHF Frequencies.—The next step up the frequency ladder, in the wide band between 30 and 300 megacycles, is Very High Frequency, the home of aviation radio. Owners of frequency modulation home radio receivers, which operate between 88 and 108 megacycles, know that this VHF area is free from static and interference. CAA aircraft communication facilities, as a matter of fact, start at the upper end of the frequency modulation broadcast band.

This broad VHF band, too, has ample "ether space" for television channels and for thousands of new aircraft radio channels. It no longer is necessary to crowd the growing volume of aircraft communication into the noisy lower-frequency bands.

Very High Frequency radio waves have curious properties. They are unlike the lower frequency waves with which most of us are familiar. The lower-frequency waves cover long distances by "bouncing" back and forth between the earth and a layer of reflecting atmosphere. In this way signals cover long distances.

VHF waves, on the other hand, usually do not bounce in this manner. They continue straight out into space. Therefore, they can be received only slightly below a "line of sight" course from the transmitter. One advantage of this characteristic is that stations below the horizon several hundred miles apart cannot interfere with each other, even at or near the same frequency.

Ideal for Aviation.—Because the airplane operates high above the ground, the "line of sight" characteristic makes VHF ideal for aviation purposes. At only 1,000 feet, a plane is within VHF range of every station within a radius of approximately 50 miles. At higher altitudes, the range is increased.

VHF offers other advantages to the pilot in addition to quiet, reliable communications. VHF transmitters are small and lighter than corresponding low-frequency equipment. Lower power can be used for normal communication.

The Army and Navy had intensive, successful experience during the war with VHF for short and medium range communication. All the advantages—freedom from static and most forms of interference, reliability, and light-weight equipment—were proved by years of intensive combat use.

The eventual change from low frequencies to VHF will be relatively painless for the aircraft owner. Installation of VHF communication equipment on the ground will be completed by about 1949. Soon thereafter, the CAA expects to have new VHF ranges in widespread operation. But low frequency and VHF equipment will be operated simultaneously by the Civil Aeronautics Administration for several years thereafter. During the interval, radio manufacturers expect to produce communication and navigation receivers to meet the needs and purses of all who fly, including private plane owners.

Civil Aviation Aided As States Cooperate In Uniform Air Laws

Thirty-one States have special commissions and 9 have departments to regulate aviation; 11 have special aviation police, and in 41 States laws have been passed designed to foster civil aviation, the Civil Aeronautics Administration recently reported.

A table showing the types of State laws is available at the CAA Office of Aviation Information, Washington 25, D. C. A chart showing state legislation in relation to airport development and fuel taxes also is ready for distribution.

The aviation laws in the various States follow, in the main, the Model Aviation Act which was prepared after conference between Federal and State officials.

These are highlights of the two charts made recently by the CAA on the status of cooperation of Federal and State Governments on laws touching civil aviation.

Thirty-two States use State police, 32 use county forces, and 33 utilize municipal departments in aviation safety enforcement activities. In some States authority is merged so as to include all. In 25 States drunken flying is specifically covered by statute.

In 46 States, Federal certification of aircraft and airmen is required and only two have no specific laws on this phase in line with the Model Act. These are Iowa and Virginia.

Drafted in 1944.—The Model Act, which was drafted in 1944 and revised 2 years later, is calculated to establish harmony of operation and action between the States and the Federal Government. These regulations, relating to safe flying and the provisions outlined for the development of airports, it is pointed out by the CAA General Counsel's Office, will insure united action by national and local authorities. An auspicious start in this direction has been made as a result of the series of negotiations which laid the ground work for the Model Act.

Thirty States have passed laws on airport zoning after the Model Act. All but five tax aviation gasoline, either directly or more commonly under a motor fuel tax. In three, the levy is 7 cents or more a gallon—Louisiana, Oklahoma, and Tennessee. The latter uses the revenue for aeronautical purposes. Missouri's tax, 2 cents, is the lowest of all, although Florida exempts motor fuel testing 78 octane or higher for exclusive use in aircraft, and 32 States make a complete or partial refund of aviation gas taxes to the purchaser.

UAL Crash Near Bryce Canyon.—Combustion of gasoline which entered the cabin heater air intake scoop from the No. 3 alternate tank vent due to inadvertent overflow during fuel transfer from the No. 4 alternate tank, was given by the CAB as the probable cause of the crash of United Air Lines' Flight 608 near Bryce Canyon Airport, Utah, on October 24, 1947. All 46 passengers and the crew of 6 were killed and the aircraft was demolished by impact and fire.

The plane was en route from Los Angeles, Calif., to Chicago, Ill. In a routine position report over St. George, Utah, the flight estimated that it would pass over Bryce Canyon, Utah, at 12:22 p. m. At 12:21 a fire was detected in the baggage compartment which the crew was unable to extinguish. The report added, that the cabin was filled with smoke and that flight 608 was attempting to make an emergency landing at Bryce Canyon Airport. Shortly thereafter, it reported the "tail is going out—we may get down and we may not." At 26 minutes past noon, another transmission was received indicating that 608 was going into the "best place" available, and 1 minute later "we may make it—approaching a strip." No further contact was made.

Witnesses who observed the aircraft as it was approaching Bryce Canyon from approximately 20 miles southwest, first observed what appeared to be white smoke streaming from the aircraft, followed later by dense black smoke. The first witnesses, who saw fire in the bottom of the craft at approximately the center section, were located approximately 15 miles south of Bryce Canyon.

The aircraft struck the ground 1½ miles southeast of the Airport while headed in a westerly direction. Various articles carried aboard the aircraft and component parts of its structure were located along the flight path for 26 miles from the point of impact. Apparently, the aircraft structure began to disintegrate in the center section in the vicinity of the right wing fillet and parts of the interior of the craft began to fall from the plane early in the fire. The fact that the trailing edge of the right wing flap, main cabin entrance door, and the buffet cold box had fallen from the aircraft prior to impact, shows the extensiveness of disintegration.

At the time of departure from Los Angeles, all four main and the four alternate tanks were filled to capacity—both auxiliary tanks were empty. The captain's regular co-pilot did not accompany him on this flight because of illness. His testimony, however, indicates the procedure which the captain normally followed with respect to fuel management: The take-off and climb would be accomplished with each engine drawing fuel from its respective main tank. Immediately after reaching cruising altitude, the captain would switch each engine to its alternate tank. The flight would proceed until a minimum of 500 pounds of fuel remained in the lowest alternate tank. At this time, the captain would transfer fuel from the higher of the alternate tanks to the lower in order to equalize the contents of all alternate tanks. This procedure requires placing the left cross-feed in the "on engines 1 and 2" position and the right cross-feed in the "on engines 3 and 4" position; the booster pump switches for the respective outboard alternate tanks in the "high" position. After having equalized the contents of the alternate tanks, the captain would stop the transfer process by turning the booster pump switches and the cross-feed controls to the "off" position.

Investigation left little doubt that the initial fire and the most extensive burning which followed were caused by combustion of fuel. Reconstruction of the flame path indicates the origin of this fuel to be forward of, and approximately in line with, the cabin heater combustion air intake scoop. Since the only source of gas in this area is the No. 3 alternate tank vent outlet, the gasoline overflow through this outlet entered the scoop while in flight, was ignited in the heater and burned in the scoop and duct.

In view of the foregoing, the testimony of the captain's regular co-pilot strongly indicates that in the course of transferring fuel from the outboard alternate tanks to the inboard alternate tanks in flight, the captain failed to stop the transfer in time to prevent the No. 3 alternate tank from overflowing through the vent outlet. The improper location of the No. 3 alternate tank air vent outlet and lack of instructions provided flight crews of this model craft concerning hazards associated with fuel transfer was cited by the Board as contributing to the cause of the crash.

Loss of Control Kills 4.—Loss of control was given as the probable cause of a Transcontinental and Western Airlines' crash into Delaware Bay near Cape May, N. J., on May 11, 1947, while on a local training flight. The four crew members were fatally injured and the aircraft demolished by impact with the water and subsequent explosions.

The plane was temporarily assigned to the New Castle County Airport, New Castle, Del., for use in the transition training program of the International Division of TWA. A flight instructor, student captain, flight engineer instructor, and a student flight engineer were aboard when the flight was cleared at 8:17 a. m. at New Castle. The aircraft circled the airport at the Cape May Coast Guard Operating Base at 1,200 feet at 9:30 a. m. and shortly afterward was seen 1 mile south of Cape May Point flying in a westerly direction toward the Brandywine Shoal Lighthouse.

It approached the lighthouse at approximately 2,500 feet in straight and level flight, and then, while still east of the lighthouse, the craft was seen starting a left turn. As the turn progressed, the bank increased sharply. As the turn continued, the plane assumed a nose-down attitude and entered what appeared to be a tight diving spiral to the left which witnesses describe as continuing for either ¾ or 1¾ turn. It continued its descent in a steep diving attitude after rotation stopped. As partial recovery from the dive was being effected, a loud roar of the engines was heard. The plane struck the water in a nose-down attitude at an angle of about 45° after which two or three muffled explosions were heard followed by smoke and fire.

The flight had been properly cleared on a local flight for the purpose of giving a student captain and a student flight engineer transition flight training. Captain Weeks, the instructor, had accumulated a total of 3,300 hours flying time, 155 of which were in the type aircraft involved. This was his first flight with Student Captain McKeirnan, who had accumulated a total of 3,795 hours. Flight engineer Luke Vollack, the flight engineer instructor, had accumulated 3,060 hours flying time and student flight engineer M. W. Heller a total of 17.

It is reasonable to assume that Captain Weeks, in reviewing his student's previous record, observed the previous type of instruction and flight time. Due to McKeirnan's lack of instrument training in the type craft involved, and having completed all but 10 minutes of airwork,[1] it is possible that on this flight the student captain was under the hood as the lighthouse was approached.

Captain McKeirnan was considered by the company to be progressing satisfactorily in his transition training; however, his flight-training record indicated he was particularly weak in his ability to maintain altitude in turns at reduced speed. The change in the sound of the engines would indicate that one or two engines were throttled so that he could practice turns under these power conditions. Difficulty in maintaining a constant altitude could be increased by one or two engines on the same side being throttled and not having the aircraft completely trimmed for this condition of flight would further aggravate the situation.

In this instance, it appears that recovery was attempted, but not enough altitude remained to recover prior to striking the water. It is possible there could have been a structural failure immediately before impact due to excessive loads imposed on the aircraft structure in an attempt to effect recovery. Evidence indicates the craft had accelerated to a high speed at the time it was recovering from the dive following the tight spiral, and the force applied to the controls of the airplane to avoid the water at this low altitude may have exceeded the design load of the structure.

As only minor parts of the aircraft were salvaged, it was impossible to determine whether structural or equipment malfunctioning contributed to the cause of the accident. Therefore, it was necessary to rely primarily upon the testimony of lay witnesses. The Board report stated "It is apparent that the cause of this accident lies in the loss of control of the aircraft by the flight crew; however, due to the meager evidence available, it is not possible to determine whether this loss of control was a result of failure of the flight controls or control system or the employment of improper technique in the use of the flight controls by the crew."

[1] Airwork in this instance refers to such maneuvers as turns, glides, climbs, engine feathering exercises, etc.

CAB Release Proposes Higher Safety Standards For Nonscheduled Lines

The Civil Aeronautics Board recently issued a draft release containing a series of proposed amendments to part 42 of the Civil Air Regulations prescribing higher standards of safety for pilots, aircraft maintenance and equipment, and operations. Raising the minimum safety requirements governing nonscheduled air carriers to a level comparable with those of the scheduled air lines is the purpose of this action.

The Board pointed out that when part 42 of the Civil Air Regulations was promulgated, establishing nonscheduled air carrier certification and operation rules, the Board was cognizant of the fact that the application of these rules to nonscheduled operations should be kept under constant study and that changes would be required from time to time based upon operating experience.

Concerned with Large Aircraft.—The proposed new regulations are concerned mainly with the larger types of transport aircraft used in nonscheduled service. The Board's records indicate that there are more than 2,600 nonscheduled operators and that about 400 multiengine aircraft of more than 10,000 pounds maximum weight are being operated by these carriers.

The proposed regulations relate to weight limitations, type of aircraft used at night and under instrument flight conditions, full feathering propellers, aircraft instruments, radio equipment, long distance operations, maintenance inspections, maintenance manuals, maintenance personnel, pilot proficiency, take-off limitations, route limitations, operations manuals, and additional safety requirements.

Culminating months of observation of nonscheduled air carrier operations, the new requirements are designed to insure relatively equal airman competency and comparable aircraft maintenance and operation between scheduled and nonscheduled air carriers.

NOTE.—Prior to January 1, 1948, the Civil Aeronautics Board Regulations were numbered consecutively 1 through 404. As of the above date, the Board separated the Economic Regulations from the Special Regulations to avoid confusion. Thus, SR 317 indicates the number of Special Regulations issued by the Board to date.

SR–317—Effective Feb. 10, 1948

At the present time certain air carriers are authorized to engage in scheduled interstate or overseas air transportation of cargo under letters of registration, or exemption therefrom, issued by the Civil Aeronautics Board pursuant to section 292.5 of the Economics Regulations, pending final disposition of their applications for certificates of public convenience and necessity. The present provisions of the Civil Air Regulations require such air carriers to obtain air carrier operating certificates under the provisons of Parts 40 and 61 of the Civil Air Regulations, and to conduct their operations in accordance with the applicable rules governing scheduled air carrier operations.

Prior to the issuance of temporary authorization to engage in scheduled cargo service, these air carriers operated on a nonscheduled basis pursuant to the provisions of Part 42 of the Civil Air Regulations. To require that these cargo carrier must fully comply with the certification and operating requirements of Parts 40 and 61 of the Civil Air Regulations, pending final disposition by the Board of their respective applications for certificates of public convenience and necessity, would subject these air carriers to an unnecessary burden and expense.

The purpose of this regulation is to enable such carriers to continue their operations under the provisions of Part 42 of the Civil Air Regulations until the Board has acted upon their applications for certificates of public convenience and necessity, but in any event only until August 1, 1948.

The Civil Aeronautics Board hereby makes and promulgates the following Special Civil Air Regulation:

Air carriers designated as "Noncertificated Cargo Carriers," authorized to engage in scheduled interstate or overseas air transportation of cargo under the provisions of section 292.5 of the Economic Regulations, may conduct such scheduled air transportation under the air carrier certification and operation rules prescribed in Part 42 of the Civil Air Regulations.

This regulation shall terminate August 1, 1948.

SR–318—Effective Feb. 1, 1948

Special Civil Air Regulation Serial Number 404 which terminated February 1, 1948, prohibited the operation of Douglas DC–6 type aircraft in which landing flare equipment is installed, notwithstanding the requirements of §§ 41.25 (j), 42.13 (b) (4), 43.30 (b) (4), and 61.7114 (b) (4) of the Civil Air Regulations.

This Special Civil Air Regulation was the result of recommendations based upon preliminary investigation of an air carrier accident involving this type aircraft in which flares appeared to have contributed substantially to the intensity of the fire causing that accident. As a result of further investigation, it has been determined that the flare equipment in this type aircraft must be completely insulated against the effect of any possible fire external to such equipment. We are advised that it will be impossible to provide such insulation on all such aircraft prior to May 1, 1948.

The Civil Aeronautics Board hereby makes and promulgates the following Special Civil Air Regulation:

Notwithstanding the provisions of the Civil Air Regulations requiring the carriage of landing flares on aircraft operated at night, Douglas DC–6 type aircraft shall not be operated with landing flare equipment installed in such aircraft, unless the Administrator finds that such equipment has been satisfactorily insulated against sources of fire external thereto.

This regulation supersedes Special Civil Air Regulation Serial Number 404 and shall terminate May 1, 1948.

SR–319—Effective Feb. 15, 1948

Special Civil Air Regulation Serial No. 399, adopted by the Board on October 10, 1947, required that after February 15, 1948, all scheduled air carrier aircraft operating during the hours of darkness or under instrument flight rule conditions shall be equipped with absolute terrain proximity indicators.

Evidence has been presented that several air carriers have had procurement and installation difficulties which have prevented the installation of this device on all aircraft on which it is required prior to February 15, 1948. The air carriers have shown that the required indicators are being installed as rapidly as equipment is obtained and as rapidly as available shop facilities permit without the establishment of separate installation lines at considerable expense and an unwarranted withdrawal of aircraft from regular service which would result in a disruption of schedules. In view of these circumstances and the fact that absolute terrain proximity indicators are to be used only as an auxiliary aid and not to replace or supersede other presently required navigational instruments, the Board finds that it is in the public interest to allow an additional period of time, which shall not extend beyond May 15, 1948, for the installation of this equipment.

The Civil Aeronautics Board hereby adopts and promulgates the following Special Civil Air Regulation:

Aircraft operated in scheduled air carrier service carrying passengers during the hours of darkness or under instrument flight rule conditions shall be equipped with an absolute terain proximity indicator, of a type approved by the Administrator, which will warn the pilot of the altitude of the aircraft above the terrain at altitudes of 2,000 feet, 1,000 feet, and any predetermined altitude between 300 and 500 feet, inclusive: *Provided*, That an air carrier may continue to operate aircraft which have not been so equipped by the effective date of this regulation until May 15, 1948.

This regulation supersedes Special Civil Air Regulation Serial No. 399 and shall terminate February 15, 1950.

Amdt. 26–3—Effective Jan. 28, 1948

Presently effective §§ 26.50 and 26.51 of the Civil Air Regulations provide that, except in emergencies under prescribed conditions, the holder of an air-traffic control-tower operator certificate with junior rating shall not control air traffic except with the consent and under the supervision of an operator holding an appropriate senior rating.

The number of operators holding senior ratings is insufficient to provide traffic control supervision at all airports. Moreover, under visual flight rule conditions traffic can be adequately supervised at many airports by an operator holding a junior rating. For these reasons the management of many airports, pilots, and aircraft owners have requested that Part 26 be amended so as to permit operators with junior ratings to supervise air traffic under visual flight rule conditions at other than major airports. The Board finds that the requested authorization will advance air safety by permitting the supervision of air traffic by properly qualified airmen at many airports where at present no control is exercised and where under conditions of high traffic density hazardous situations frequently exist.

For the reasons stated above, notice and public procedures hereon are impracticable, and the Board finds that good cause exists for making this amendment effective on less than 30 days' notice.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 26 of the Civil Air Regulations:

1. By amending § 26.50 to read as follows:

26.50 Exercise of Authority. A certificated air-traffic control-tower operator shall control traffic in accordance with the procedures and practices prescribed by the Administrator to provide for the safe, orderly, and expeditious flow of air traffic and in accordance with the following requirements:

(a) When weather conditions are equal to or better than the basic minimums prescribed for VFR flight by Part 60 of the Civil Air Regulations, air traffic may be controlled by an operator with either a junior or senior rating for the airport involved: *Provided*, That where the Administrator finds the volume or character of the air traffic, the type and equipment of aircraft utilizing the airport, or the airport facilities require that an operator with a junior rating be supervised, he may require all air traffic at such airport to be controlled under the supervision of an operator with a senior rating.

(b) When weather conditions are below the basic minimums prescribed for BFR flight by Part 60 of the Civil Air Regulations, air traffic shall be controlled by an operator with senior rating, and such operator shall not issue an air traffic clearance for flight without prior authorization from the appropriate air traffic control center.

(c) In an emergency an operator with a senior rating may delegate his authority to an operator with a junior rating.

2. By repealing §§ 26.51 and 26.55.

Amdt. 40–2—Effective March 20, 1948

Section 40.2 (d) now requires that aircraft in scheduled passenger service used after December 31, 1948, be certificated in accordance with transport category airworthiness requirements and meet the operational limitations of § 61.712 over each route to be flown. This rule, if applied to certain models of aircraft, such as the Douglas DC–3, either would prevent their use in scheduled passenger service after 1948 or would require extensive alterations to the aircraft.

The Board on November 3, 1947, held a public hearing which was concerned in part with a specific proposal to amend § 40.2 (d) so as to permit the use of DC–3's in scheduled passenger service after 1948 without extensive alteration. After due consideration of all information relevant to the matter, including the evidence introduced at the hearing, the Board has determined that operational experience with certain aircraft now in substantial use by scheduled air carriers justifies permitting their operation after 1948 without enforced compliance with the transport category requirements.

This amendment, therefore, authorizes such operation until the end of 1953. It further provides that an air carrier may elect at any time prior to the end of 1953 to qualify his aircraft under the transport category performance requirements of Part 04a. Under this elective, the air carrier is required to so qualify all units of the same basic model in his fleet, and thereafter to operate such aircraft in accordance with the operational limitations of § 61.712 over each route to be flown.

If the air carrier continues to operate his aircraft without qualifying under the performance requirements of the transport category, the amendment authorizes the Administrator to determine and impose uniform operating limitations based upon the relationship of the performance of the aircraft to the airport dimensions and terrain.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 40 of the Civil Air Regulations:

By amending § 40.2 to read as follows:

40.2 Passenger minimum requirements.

(a) Aircraft certificated as a basic type after June 30, 1942, shall be certificated in accordance with Part 04b, or the transport category requirements of Part 04a, and shall meet the requirements of § 61.712 over each route to be flown.

(b) Aircraft certificated as a basic type prior to June 30, 1942, shall either:

(1) Retain their present airworthiness certification status and shall be operated in accordance with such operating limitations as the Administrator finds will provide a safe relation between the performance of the aircraft and the dimensions of airports and terrain; or

(2) Qualify by showing compliance with either the performance requirements contained in §§ 04a.75–T through 04a.7533–T or the requirements contained in Part 04b, and when so qualified shall meet the requirements of § 61.712 over each route to be flown: *Provided*, That should any model be so qualified all aircraft of any one operator of the same or related models shall be similarly qualified and operated.

(c) Aircraft used after December 31, 1953, shall comply with all of the requirements of Part 04b or the transport category requirements of Part 04a, and shall meet the requirements of § 61.712 over each route to be flown.

Amdt. 41–16—Effective March 20, 1948

Prior to December 31, 1947, § 41.26 (b) provided that all aircraft used in scheduled passenger service outside the United States after that date be certificated in accordance with transport category airworthiness requirements and meet the operational limitations of § 41.27 over each route to be flown. This rule, if applied to certain models of aircraft, such as the Douglas DC–3, either would have prevented their use in scheduled passenger service outside the United States after 1947 or would have required extensive alterations to the aircraft.

The Board on November 3, 1947, held a public hearing which was concerned in part with a specific proposal to amend § 41.26 so as to permit the use of DC–3's in scheduled passenger service outside the United States after 1947 without extensive alteration. After due consideration of the evidence there presented, the Board determined that certain changes in the proposal would be desirable.

In order to afford sufficient time to work out such changes, the Board adopted on December 15, 1947, Civil Air Regulations Amendment 41–15 which contained the then existing status of DC–3 aircraft in scheduled passenger service outside the United States until the end of 1948.

After further consideration, the Board has determined that operational experience with certain aircraft now in substantial use by scheduled air carriers justifies permitting their operation after 1948 without enforced compliance with the transport category requirements. This amendment, therefore, authorizes such operation until the end of 1953. It further provides that an air carrier may elect at any time prior to the end of 1953 to qualify his aircraft under the transport category performance requirements of Part 04a.

Under this elective, the air carrier is required to so qualify all units of the same basic model in his fleet, and thereafter to operate such aircraft in accordance with the operational limitations of § 41.27 over each route to be flown. If the air carrier continues to operate his aircraft without qualifying under the performance requirements of the transport category, the amendment authorizes the Administrator to determine and impose uniform operating limitations based upon the relationship of the performance of the aircraft to the airport dimensions and terrain.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 41 of the Civil Air Regulations:

By amending § 41.26 to read as follows:

41.26 Aircraft certification limitations.

(a) Aircraft certificated as a basic type after June 30, 1942, shall be certificated in accordance with Part 04b, or the transport category requirements of Part 04a, and shall meet the requirements of § 41.27 over each route to be flown.

(b) Aircraft certificated as a basic type prior to June 30, 1942, shall either:

(1) Retain their present airworthiness certification status and shall be operated in accordance with such operating limitations as the Administrator finds will provide a safe relation between the performance of the aircraft and the dimensions of airports and terrain; or

(2) Qualify by showing compliance with either the performance requirements contained in §§ 04a.75–T through 04a.7533–T, or the requirements contained in Part 04b, and when so qualified shall meet the requirements of § 41.27 over each route to be flown: *Provided*, That should any model be so qualified all aircraft of any one operator of the same or related models shall be similarly qualified and operated.

(c) Aircraft used after December 31, 1953, shall comply with all of the requirements of Part 04b or the transport category requirements of Part 04a, and shall meet the requirements of § 41.27 over each route to be flown.

Amdt. 42–7—Effective March 10, 1948

The purpose of this regulation is to provide an additional margin of safety for air carriers by raising, with certain exceptions, the present minimum instrument altitudes over mountainous terrain from 1,000 feet to 2,000 feet; the minimum night VFR altitudes in unlighted areas over mountainous terrain from 1,000 feet to 2,000 feet; and the minimum day VFR altitudes from 500 feet to 1,000 feet.

Air carrier accidents in which aircraft have failed to clear the terrain have clearly pointed to the need for raising the minimum en route altitudes to provide for a greater margin of safety in those areas or under those conditions where miscalculations, altimeter errors, or unusual weather conditions may result in insufficient clearance at the presently established minimum altitudes.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 42 of the Civil Air Regulations:

By amending § 42.35 to read as follows:

42.35 Flight altitude rules. Except during take-off and landing, the flight altitude rules prescribed in §§ 42.350 and 42.351, in addition to the applicable provisions of § 60.107, shall govern air carrier operations: *Provided*, That other altitudes may be established by the Administrator for any route or portion thereof where he finds, after considering the character of the terrain being traversed, the quality and quantity of meteorological service, the navigational facilities available, and other flight conditions, that the safe conduct of flight permits or requires such other altitudes.

42.350 Day VFR passenger operations. No aircraft engaged in passenger operations shall be flown at an altitude less than 1,000 feet above the surface or less than 1,000 feet from any mountain, hill, or other obstruction to flight.

42.351 Night VFR or IFR operations. No aircraft shall be flown at an altitude less than 1,000 feet above the highest obstacle located within a horizontal distance of 5 miles from the center of the course intended to be flown or, in mountainous terrain designated by the Administrator, 2,000 feet above the highest obstacle located within a horizontal distance of 5 miles from the center of the course intended to be flown: *Provided*, That in VFR operations at night in such mountainous areas aircraft may be flown over a lighted civil airway at a minimum altitude of 1,000 feet above such obstacle.

Amdt. 43–1—Effective Jan. 27, 1948

Presently effective § 43.1010 of Part 43 of the Civil Air Regulations requires that "an aircraft for which an airworthiness cer-

(*See Official Actions, page 33*)

(*Continued from preceding page*)

tificate is currently in effect shall not be operated unless there is attached to such airworthiness certificate an appropriate aircraft operation record prescribed and issued by the Administrator, nor shall such aircraft be operated other than in accordance with the limitations prescribed and set forth by the Administrator in such record. Any change made to the aircraft which affects these limitations shall be made under the supervision of an appropriately rated mechanic or other person authorized by the Administrator and such change shall be noted in the aircraft operation record."

The purpose of this amendment is to provide that an aircraft can be operated in accordance with the operating limitations prescribed in the Airplane Flight Manual issued by the manufacturer as provided for by Parts 03 and 04b of the Civil Air Regulations. In addition, the amendment deletes the requirement relating to the changes made in the aircraft which affect the operating limitations, as this requirement is already established by Part 18 of the Civil Air Regulations.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented. Since this amendment imposes no additional burden on any person, it may be made effective without prior notice.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 43 of the Civil Air Regulations:

1. By amending § 43.1010 to read as follows:

43.1010 Aircraft operating limitations. An aircraft for which an airworthiness certificate is currently in effect shall not be operated unless there are available in the aircraft appropriate aircraft operating limitations set forth in a form and manner prescribed by the Administrator, or a current Airplane Flight Manual approved by the Administrator; nor shall such aircraft be operated otherwise than within its prescribed operating limitations.

Amdt. 43–2 ..... Effective Apr. 1, 1948

Section 43.24 of Part 43 of the Civil Air Regulations now requires the registered owner of an aircraft to keep a record of the flight time of the aircraft and the running time of each engine. Section 01.27 of Part 01 which required the owner to record minor repairs and minor alterations of the aircraft, engine, or propellers in a logbook was repealed by Amendment 01–3, effective October 16, 1947.

The purpose of this amendment is to include in the general aircraft operation rules a provision which would require a maintenance history of the aircraft in the aircraft and engine records.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 43 of the Civil Air Regulations:

By amending § 43.24 to read as follows:

43.24 Aircraft and engine records. The registered owner of a certificated aircraft shall be responsible for maintaining and keeping available for inspection by an authorized representative of the Administrator or the Board and for transfer with the aircraft or engine the following records:

(a) Aircraft and engine records which shall contain a current, accurate, and permanent record including the flight time of the aircraft and each engine, reports of inspections, minor repairs, and minor alterations of the aircraft structure, engines, and propellers. A mechanical device which records the total time of operation or the total number of engine revolutions may be used in lieu of individual flight entries: *Provided,* That the totals of flight time are recorded in the aircraft and engine records at periodic intervals to enable compliance with the required inspections and maintenance procedures.

(b) A record of major repairs and alterations shall be maintained as required by Part 18. A reference to such major repairs and alterations shall be entered in the appropriate place in the aircraft records.

Amdt. 60–1 ..... Effective Apr. 1, 1948

Section 60.200 of the Civil Air Regulations presently provides that under Visual Flight Rules aircraft flown within control zones must keep 500 feet vertically and 2,000 feet horizontally from any cloud formation unless otherwise authorized by air traffic control. Section 60.107 (c) provides that an altitude of 500 feet must be maintained except over open water, sparsely populated areas, or when necessary for taking off and landing. Section 60.201 permits VFR flight within a control zone without air traffic control clearance when visibility is at least three miles.

Under these regulations it is possible for aircraft to enter a control zone and the traffic pattern of controlled airports without prior authorization from air traffic control when approaching, for example, over water or sparsely populated areas under a ceiling of 600 or 700 feet while at the same time other aircraft, operating under Instrument Flight Rules, are letting down on instruments. Such practices often result in requiring aircraft operating under IFR rules to hold for unduly long periods in the "stack" and also have often created a collision hazard.

The purpose of this regulation is to amend § 60.200 to provide that when the ceiling is less than 1,000 feet all aircraft being flown in control zones under Visual Flight Rules shall be required to obtain a clearance from air traffic control. It does not apply to airports or landing areas outside control zones.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 60 of the Civil Air Regulations:

1. By amending § 60.200 to read as follows:

60.200 Ceiling and distance from clouds. Aircraft shall comply with the following requirements as to ceiling and distance from clouds:

(a) *Within control zones.* Unless authorized by air traffic control, aircraft shall not be flown when the ceiling is less than 1,000 feet, or less than 500 feet vertically and 2,000 feet horizontally from any cloud formation.

(b) *Elsewhere.* When at an altitude of more than 700 feet above the surface aircraft shall not be flown less than 500 feet vertically and 2,000 feet horizontally from any cloud formation; when at an altitude of 700 feet or less aircraft shall not be flown unless clear of clouds.

2. By deleting the "Chart of VFR visibility and distance-from-clouds minimums."

3. By deleting the "Chart of cruising altitudes outside of control areas and control zones."

Amdt. 60–2 ..... Effective Apr. 1, 1948

The present definition of "hours of darkness" in § 60.921 prescribes that under specified conditions the hours of darkness shall extend from 30 minutes after sunset to 30 minutes before sunrise, except in the Territory of Alaska. Paragraphs (a) and (b) of § 60.113 of the Civil Air Regulations provide that when operating during the hours of darkness aircraft shall display position lights and when parked in certain areas during the hours of darkness they shall be clearly illuminated.

The purpose of this amendment of §§ 60.113 and 60.921 of Part 60 is to require all aircraft to display position lights when operated between sunset and sunrise and to eliminate the 30-minute interval presently authorized. It also deletes the present definition of "hours of darkness" and provides, in lieu thereof, a definition of "sunset and sunrise".

Interested persons have been afforded an opportunity to par-

(*See Official Actions, page 35*)

Air Regulations . *on March 1, 1948*

Title	No.	Part: Price	Part: Date	Part: No. of Amendments	Manual: Price	Manual: Date	Manual: No. of Amendments
Aircraft							
Airworthiness Certificates	01	$0.05	10/15/42	3	None	None	.....
Type and Production Certificates	02	.05	7/1/46	1	$0.10	8/1/46	.....
Airplane Airworthiness—Normal, Utility, Acrobatic, and Restricted Purpose Categories	[1] 03	.25	12/15/46	3	None	None	.....
Airplane Airworthiness	04a	.25	11/1/47	1	.75	7/1/44	2
Airplane Airworthiness Transport Categories	[1] 04b	Free	11/9/45	8	None	None	.....
Rotorcraft Airworthiness	06	.10	5/24/46	1	None	None	.....
Aircraft Airworthiness, Limited Category	09	.05	11/21/46	1	None	None	.....
Engine Airworthiness	13	.05	8/1/41	.....	None	None	.....
Propeller Airworthiness	14	.05	7/15/42	1	.15	5/1/46	.....
Equipment Airworthiness	15	.05	5/31/46	.....	None	None	.....
Radio Equipment Airworthiness	16	.05	2/13/41	.....	Free	2/13/41	1
Maintenance, Repair, and Alteration of Aircraft, Engines, Propellors, Instruments	18	.05	9/1/42	.....	.60	6/1/43	.....
Airmen							
Pilot Certificates	20	.05	7/1/45	8	None	None	.....
Airline Pilot Rating	21	.05	10/1/42	4	None	None	.....
Lighter-than-air Pilot Certificates	22	.05	10/15/42	2	None	None	.....
Mechanic Certificates	24	.05	7/1/43	[2] 2	None	None	.....
Parachute Technician Certificates	25	.05	12/15/43	4	None	None	.....
Traffic Control Tower Operator Certificates	26	.05	10/10/45	3	None	None	.....
Aircraft Dispatcher Certificates	27	.05	7/1/46	1	None	None	.....
Physical Standards for Airmen	29	.05	1/10/46	.....	None	None	.....
Flight Radio Operator Certificates	33	.05	8/1/47	.....	None	None	.....
Flight Navigator Certificates	34	.05	8/1/47	.....	None	None	.....
Flight Engineer Certificates	35	.05	3/15/47	.....	None	None	.....
Operation Rules							
Air Carrier Operating Certification	40	.10	7/10/46	[3] 2	None	None	.....
Scheduled Air Carrier Operations Outside Continental United States	41	.05	5/1/46	[4] 16	None	None	.....
Nonscheduled Air Carrier Certification and Operation Rules	42	.05	8/1/46	[4] 7	.15	11/1/46	.....
General Operation Rules	43	.05	12/1/47	2	None	None	.....
Foreign Air Carrier Regulations	44	.05	11/1/47	.....	None	None	.....
Operation of Moored Balloons	48	.05	9/28/47	.....	None	None	.....
Transportation of Explosives and other Dangerous Articles	49	.05	7/1/45	1	None	None	.....
Air Agencies							
Airman Agency Certificates	50	.05	4/30/46	.....	.15	5/15/46	2
Ground Instructor Rating	51	.05	12/15/43	2	None	None	.....
Repair Station Rating	52	.05	10/1/42	.....	No stock	2/41	.....
Mechanic School Rating	53	.05	8/1/42	1	Free	5/40	.....
Parachute Loft Certificates and Ratings	54	.05	1/21/43	.....	None	None	.....
Air Navigation							
Air Traffic Rules	60	.10	10/8/47	2	[7]	.....	.....
Scheduled Air Carrier Rules	61	.10	8/1/46	[4] 13	None	None	.....
Miscellaneous							
Rules of Practice Governing Suspension and Revocation Proceedings	97	Free	1/1/47	1	None	None	.....
Definitions	98	No stock	10/15/42	.....	None	None	.....
Mode of Citation	99	Free	11/15/40	.....	None	None	.....
Regulations of the Administrator							
Aircraft Registration Certificates	501	Free	5/1/47	.....	.....	.....	.....
Dealers' Registration Certificates	502	Free	5/1/47	.....	.....	.....	.....
Recordation of Aircraft Ownership	503	Free	5/1/47	.....	.....	.....	.....
Notice of Construction or Alteration of Structures on or near Civil Airways	525	Free	7/23/43	1	.....	.....	.....
Seizure of Aircraft	531	Free	12/8/41	.....	.....	.....	.....
Reproduction and Dissemination of Current Examination Materials	532	Free	1/15/43	.....	.....	.....	.....
Federal Aid to Public Agencies for Development of Public Airports	550	Free	1/9/47	.....	1 thru 8. In Federal Register, vol. 12, Nos. 74, 92, 112, 122, 161, 187, 198. Total cost, $1.05.	.....	.....
Acquisition by Public Agencies for Public Airport Purposes of Land Owned or Controlled by the United States	555	Free	1/9/47	.....	1. In Federal Register, vol. 12, No. 37. 15¢.	.....	.....
Claims for Reimbursement for Rehabilitation or Repair of Public Airports Damaged by Federal Agencies	560	Free	1/9/47	.....	.....	.....	.....

[1] Certain aircraft may comply with the provisions of this part or part 04a.
[2] Special regulations 340 and 340D.
[3] Special regulations 361A, 361D, 396.
[4] Special regulations 385, 390, 390B, 403, 397, 397A, 399.
[5] 385, 390, 390B, 403.
[6] Special regulations 361A, 361D, 385, 390, 390B, 397, 397A, 399.
[7] Combined with Flight Information Manual.

NOTE: Those parts and manuals for which there is a price are obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Remittances should be by check or money order, payable to the Superintendent. Currency is sent at sender's risk. Amendments, Special Regulations and free Parts are obtained from the Publications Section, Civil Aeronautics Board, Washington 25, D. C.; free Manuals and Regulations of the Administrator from the CAA Office of Aviation Information, Dept. of Commerce, Washington 25, D. C.

Scheduled Air Carrier Operations

Source: CAB Form 41

Domestic Trunk Lines—December 1947

Operator	Revenue miles	Revenue passengers (unduplicated)	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
American Airlines, Inc	3,860,204	167,267	85,277	4,386.0	577,997	1,497,275	132,179	64.52
Braniff Airways, Inc	922,508	44,671	16,256	377.0	92,281	80,060	28,650	56.74
Chicago & Southern Air Lines, Inc	578,755	20,135	8,278	281.0	62,731	49,403	16,031	51.64
Colonial Air Lines, Inc	190,176	7,856	2,247	25.3	4,673	1,968	3,719	60.42
Continental Air Lines, Inc	447,362	11,639	4,366	63.0	10,099	19,191	9,223	47.34
Delta Air Lines, Inc	1,146,692	39,718	16,164	482.0	105,083	140,711	31,960	50.58
Eastern Air Lines, Inc	4,396,549	165,282	88,575	1,542.5	480,394	446,822	156,522	56.59
Inland Air Lines, Inc	195,210	5,561	2,045	19.0	5,230	2,102	3,706	55.18
Mid-Continent Airlines, Inc	509,217	19,232	5,886	112.0	17,640	17,854	10,009	58.81
National Airlines, Inc	588,325	20,005	9,637	202.6	57,353	78,568	18,224	52.88
Northeast Airlines, Inc	265,129	20,394	3,827	151.8	11,443	10,868	7,955	48.11
Northwest Airlines, Inc	1,187,663	37,260	21,170	547.3	203,812	141,165	37,292	56.77
Pennsylvania-Central Airlines Corp	1,189,760	71,141	19,842	1,472.0	211,046	344,216	37,135	53.43
Transcontinental & Western Air, Inc	4,220,528	85,532	69,686	1,512.0	573,435	627,597	109,797	63.47
United Air Lines, Inc	4,370,063	113,247	69,611	2,745.0	837,922	1,209,298	104,065	66.89
Western Air Lines, Inc	531,047	23,804	9,681	193.0	29,868	45,148	18,052	53.63
Total	24,599,188	852,764	432,548	14,111.5	3,281,007	4,712,246	724,519	59.70

Domestic Trunk Lines—January-December 1947, 1946

Operator	Revenue miles January–December		Revenue passengers January–December		Revenue passenger-miles (000) January–December		Express and freight (tons) January–December	
	1947	1946	1947	1946	1947	1946	1947	1946
American Airlines, Inc	57,598,709	63,206,461	2,756,212	2,485,589	1,379,323	1,307,907	33,758.0	21,871.0
Braniff Airways, Inc	11,024,158	11,573,706	587,481	535,807	199,634	212,920	2,843.9	2,043.3
Chicago & Southern Air Lines, Inc	7,083,921	8,086,222	282,549	350,296	111,643	137,845	2,617.0	1,579.7
Colonial Airlines, Inc	3,117,351	3,175,637	135,623	154,398	37,854	45,592	314.0	239.1
Continental Air Lines, Inc	5,156,958	5,406,360	169,062	204,602	58,926	75,623	505.0	351.2
Delta Air Lines, Inc	11,840,706	11,076,804	497,768	509,219	201,048	209,581	3,312.0	1,522.0
Eastern Air Lines, Inc	46,050,900	41,295,630	1,734,902	1,549,965	884,300	803,026	10,588.1	6,615.4
Inland Air Lines, Inc	2,219,332	1,980,597	78,252	81,307	27,810	22,362	180.1	105.3
Mid-Continent Airlines, Inc	6,574,538	5,272,030	269,023	249,672	81,873	75,571	821.1	400.9
National Airlines, Inc	9,159,554	9,133,278	307,627	293,099	157,343	173,175	1,427.7	480.1
Northeast Airlines, Inc	3,937,578	4,175,029	325,172	417,095	62,142	83,849	1,155.7	682.9
Northwest Airlines, Inc	16,817,021	18,631,146	643,708	626,340	346,873	378,439	4,384.1	2,291.2
Pennsylvania-Central Airlines Corp	16,236,556	17,540,194	1,095,642	1,342,890	288,470	373,333	13,085.0	7,539.0
Transcontinental & Western Air, Inc	48,788,787	40,928,715	1,066,833	885,309	817,883	744,291	12,330.0	10,605.0
United Air Lines, Inc	58,919,715	54,479,796	1,917,145	1,724,387	1,189,109	1,067,938	21,918.0	13,167.4
Western Air Lines, Inc	7,353,646	8,582,407	412,017	479,642	166,396	191,659	2,065.9	1,534.6
Total	311,879,430	304,544,012	12,278,074	11,889,617	6,010,627	5,903,111	111,305.6	71,028.1
Index (1946=100)	102.41	100.00	103.27	100.00	101.82	100.00	156.71	100.00

Operator	Ton-miles flown				Passenger seat-miles (000) January–December		Revenue passenger load factor (percent) January–December	
	Express January–December		Freight January–December					
	1947	1946	1947	1946	1947	1946	1947	1946
American Airlines, Inc	5,144,377	5,176,048	11,178,731	6,238,966	1,967,435	1,603,158	70.11	81.58
Braniff Airways, Inc	827,913	614,061	475,437	237,744	324,366	275,967	61.55	77.15
Chicago & Southern Air Lines, Inc	662,443	508,885	388,025	63,863	190,996	196,290	58.45	70.23
Colonial Airlines, Inc	60,075	55,604	7,989	0	61,603	63,240	61.45	72.09
Continental Air Lines, Inc	85,488	73,263	137,133	71,684	106,291	112,308	55.44	67.34
Delta Air Lines, Inc	775,821	532,058	876,129	136,690	331,423	292,801	60.66	71.58
Eastern Air Lines, Inc	3,773,010	3,450,701	2,509,900	320,450	1,467,480	1,037,210	60.26	77.42
Inland Air Lines, Inc	44,119	20,289	27,853	4,673	43,038	36,186	64.62	61.80
Mid-Continent Airlines, Inc	152,398	135,519	112,926	0	132,329	104,240	61.87	72.50
National Airlines, Inc	492,539	239,392	526,144	56,792	287,558	221,026	54.72	78.35
Northeast Airlines, Inc	111,048	114,258	65,038	0	121,287	127,501	51.24	65.76
Northwest Airlines, Inc	1,699,688	1,299,592	951,655	33,496	502,731	467,058	69.00	81.03
Pennsylvania-Central Airlines Corp	2,034,636	1,444,721	2,433,202	418,991	534,602	532,995	53.96	70.04
Transcontinental & Western Air, Inc	5,460,025	3,940,438	4,920,493	2,216,688	1,233,977	888,058	66.28	83.81
United Air Lines, Inc	6,810,859	5,624,720	10,161,538	4,445,081	1,578,827	1,266,676	75.32	84.31
Western Air Lines, Inc	398,923	422,117	441,397	187,983	268,446	265,677	61.98	72.14
Total	28,533,362	23,651,666	35,213,590	14,433,101	9,152,389	7,490,391	65.67	78.81
Index (1946=100)	120.64	100.00	243.98	100.00	122.19	100.00	83.33	100.00

Passenger-miles flown (total revenue and nonrevenue, in thousands): January—388,289; February—380,606; March—503,466; April—535,254; May—574,303; June—556,562; July—553,950; August—621,950; September—619,494; October—588,317; November—443,158; December—443,908; Total—6,209,257.

Domestic Territorial Lines—December 1947

Operator	Revenue miles	Revenue passengers (unduplicated)	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
Caribbean-Atlantic Airlines, Inc	33,636	6,619	410	8.7	0	637	851	48.18
Hawaiian Airlines, Ltd	265,317	30,324	4,174	539.0	14,032	67,313	5,719	72.98
Total	298,953	36,943	4,584	547.7	14,032	67,950	6,570	69.77

Scheduled Air Carrier Operations—Concluded

Domestic Feeder Lines—December 1947

Operator	Revenue miles	Revenue passengers (unduplicated)	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
All American Aviation, Inc	120, 278	0	0	14. 6	1, 913	0	0	-
Challenger Airlines Co								
Empire Air Lines, Inc	70, 811	559	135	2. 0	490	0	708	19. 07
Florida Airways, Inc	66, 698	708	92	2. 3	240	0	533	17. 26
Los Angeles Airways, Inc. (started 10/1)	14, 551	0	0	0	0	0	0	-
Monarch Air Lines, Inc	117, 054	1, 728	376	36. 0	763	4, 212	2, 107	17. 85
Pioneer Air Lines, Inc	218, 498	5, 901	1, 554	10. 0	1, 945	913	5, 252	29. 59
Southwest Airways Co	176, 022	5, 896	1, 155	39. 0	2, 971	2, 430	3, 448	33. 50
Trans-Texas Airways	93, 837	724	151	1. 9	182	0	1, 971	7. 66
West Coast Airlines, Inc	89, 398	2, 426	327	7. 6	788	0	1, 628	20. 09
[a] Total	967, 147	17, 942	3, 790	113. 4	9, 292	7, 555	15, 647	24. 22
Los Angeles Airways—October	9, 853	0	0	0	0	0	0	-
Los Angeles Airways—November	12, 501	0	0	0	0	0	0	-

[a] Does not include Challenger Airline Co.

International and Overseas Air Carriers—November 1947

Operator	Revenue miles	Revenue passengers	Revenue passenger-miles (000)	Express and freight (tons)	Ton-miles flown		Passenger seat-miles (000)	Revenue passenger load factor (percent)
					Express	Freight		
American Airlines, Inc	224, 801	4, 875	3, 965	292. 0	0	240, 163	6, 843	57. 94
American Overseas Airlines, Inc	491, 389	3, 874	11, 314	51. 9	169, 421	0	18, 483	61. 21
Chicago & Southern Air Lines, Inc	38, 360	780	534	8. 0	0	5, 206	1, 555	34. 34
Colonial Airlines, Inc	49, 614	883	694	2. 9	2, 333	0	1, 786	38. 86
Eastern Air Lines, Inc	60, 060	1, 064	1, 065	14. 4	0	20, 378	3, 352	31. 77
National Airlines, Inc	34, 680	1, 806	572	58. 1	17, 136	0	1, 595	35. 86
Northwest Airlines, Inc	322, 030	1, 824	3, 472	20. 6	3, 940	41, 030	7, 861	44. 17
Pan American Airways, Inc.								
Atlantic Division	1, 024, 989	8, 243	23, 559	104. 7	443, 457	0	35, 045	67. 22
Latin American Division	2, 385, 937	43, 567	41, 128	1, 255. 0	1, 953, 123	0	85, 468	48. 12
Alaska Operations	161, 638	1, 711	1, 950	65. 0	86, 041	0	6, 225	31. 33
Pacific Operations	1, 167, 176	7, 539	21, 988	99. 0	356, 848	0	29, 707	74. 02
Pan American-Grace Airways, Inc	471, 588	8, 838	9, 050	228. 0	139, 167	0	14, 157	63. 93
Transcontinental & Western Air, Inc	730, 206	4, 869	16, 464	60. 0	250, 223	0	25, 737	63. 97
United Air Lines, Inc	93, 600	1, 079	2, 590	3. 0	8, 288	0	3, 454	74. 99
Uraba, Medellin & Central Airways, Inc	14, 608	281	93	15. 0	4, 967	0	258	36. 05
Total	7, 270, 676	91, 233	138, 438	2, 277. 6	3, 434, 944	306, 777	241, 526	57. 32

Official Actions . . . Civil Aeronautics Board

(*Continued from page 33*)

ticipate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing the Civil Aeronautics Board hereby amends Part 60 of the Civil Air Regulations (14 CFR, Part 60) effective April 1, 1948:

1. By amending § 60.113 to read as follows:

60.113 Aircraft lights. Between sunset and sunrise:

(a) all aircraft in flight or operated on the ground or under way on the water shall display position lights;

(b) all aircraft parked or moved within or in dangerous proximity to that portion of any airport used for, or available to, night flight operations shall be clearly illuminated or lighted, unless the aircraft are parked or moved in an area marked with obstruction lights;

(c) all aircraft at anchor shall display anchor lights, unless in an area within which lights are not required for vessels at anchor; and

(d) within the Territory of Alaska the lights required in a, b, and c above shall be displayed during those hours specified and published by the Administrator.

2. By amending § 60.921 to read as follows:

60.921 Sunset and sunrise. Sunset and sunrise are the mean solar times of sunset and sunrise as published in the Nautical Almanac converted to local standard time for the locality concerned, except within the Territory of Alaska.

Note: The Nautical Almanac containing sunshine tables may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Information is also available from the sunshine tables in the offices of the Civil Aeronautics Administration or the United States Weather Bureau.

Admt. 61–13.....Effective March 10, 1948

The purpose of this regulation is to provide an additional margin of safety for air carriers by raising, with certain exceptions, the present minimum instrument altitudes over mountainous terrain from 1,000 feet to 2,000 feet; the minimum night VFR altitudes in unlighted areas over mountainous terrain from 1,000 feet to 2,000 feet; and the minimum day VFR altitudes from 500 feet to 1,000 feet.

Air carrier accidents in which aircraft have failed to clear the terrain have clearly pointed to the need for raising the minimum en route altitudes to provide for a greater margin of safety in those areas or under those conditions where miscalculations, altimeter errors, or unusual weather conditions may result in insufficient clearance at the presently established minimum altitudes.

Interested persons have been afforded an opportunity to participate in the making of this amendment, and due consideration has been given to all relevant matter presented.

In consideration of the foregoing, the Civil Aeronautics Board hereby amends Part 61 of the Civil Air Regulations (14 CFR, Part 61, as amended) effective March 10, 1948:

By amending §§ 61.74 through 61.741 to read as follows:

61.74 Flight altitude rules. Except during take-off and landing, the flight altitude rules prescribed in §§ 61.740 and 61.741, in addition to the applicable provisions of § 60.107, shall govern air carrier operations: *Provided,* That other altitudes may be established by the Administrator for any route or portion thereof where he finds, after considering the character of the terrain being traversed, the quality and quantity of meteorological service, the navigational facilities available, and other flight conditions, that the safe conduct of flight permits or requires such other altitudes.

61.740 Day VFR passenger operations. No aircrast engaged in passenger operations shall be flown at an altitude less than 1,000 feet above the surface or less than 1,000 feet from any mountain, hill, or other obstruction to flight.

67.741 Night VFR or IFR operations. No aircraft shall be flown at an altitude less than 1,000 feet above the highest obstacle located within a horizontal distance of 5 miles from the center of the course intended to be flown or, in mountainous terrain designated by the Administrator, 2,000 feet above the highest obstacle located within a horizontal distance of 5 miles from the center of the course intended to be flown: *Provided,* That in VFR operations at night in such mountainous areas aircraft may be flown over a lighted civil airway at a minimum altitude of 1,000 feet above such obstacle.

Airline Orders

E–1130 terminates suspension of letter of registration No. 995 issued on Aug. 26, 1947, to Paul Mantz Air Services (Jan. 20).

E–1131 orders that an amended temporary certificate be issued to Florida Airways, for route 75. (Issued with an opinion—Jan. 20.)

E–1132, subject to a condition, approves agreements between Transcontinental & Western Air and Iberia, Tata Sons Ltd., Ethiopian Air Lines, and Aer Lingus Teoranta, relating to agency representation and other matters (Jan. 20).

E–1133 orders that a foreign air carrier permit be issued to Aerlinte Eireann Teoranta authorizing transportation of persons, property, and mail between a terminal point or points in Ireland, an intermediate point or points in Newfoundland, the intermediate point Boston, Mass., and the terminal point New York, N. Y., and between a terminal point or points in Ireland, an intermediate point or points in Newfoundland, the intermediate point Montreal, Canada, and the terminal point Chicago, Ill. (Issued with an opinion—Jan. 14.)

E–1134 denies application of Mantrap Air Services in Docket 3243 (Jan. 20).

E–1135 extends the period of suspension for the provisions of certain tariffs from and after Jan. 22, 1948, for an additional 90-day period to and including Apr. 21, 1948, or until further order of the Board; by order E–916, the Board entered upon an investigation concerning the lawfulness of certain rates and charges contained in certain tariffs filed by American Airlines, Inland Air Lines, Pennsylvania-Central Airlines Corp., Southwest Airways Co., TWA, UAL, and WAL, and suspended the operation of the provisions of said tariffs for 90 days; inasmuch as the 90-day period of suspension of the tariffs expired on Jan. 22, and the Board's investigation could not be concluded in the 90-day period, the suspension period was extended (Jan. 21).

E–1136 approves application for transfer to Alaska Island Airlines of the certificate issued to Peteraburg Air Service. (Issued with an opinion—Dec. 31.)

E–1137 approves agreement 1095, between American and Pennsylvania-Central Airlines, relating to lease of radio transmitter space (Jan. 21).

E–1138 denies application of Skytrain Airways in Docket 3148 (Jan. 22).

E–1139 dismisses application of Via-Air—Docket 2024—for a certificate (Jan. 23).

E–1140 dismisses, without prejudice—applications of United Transports for certificates (Jan. 23).

E–1141 dismisses application of E. H. Friddle d/b/a E. H. Friddle, for a certificate (Jan. 23).

E–1142 dismisses, for want of prosecution, application of Rudolph Pekrul d/b/a Pekrul Flying Service, for a certificate (Jan. 23).

E–1143 authorizes Pan American-Grace Airways to suspend service for one year at Salinas, Ecuador (Jan. 23).

E–1144 authorizes Wisconsin Central to suspend service temporarily at Appleton, Ashland, Baraboo-Portage, Fond-du-Lac, Green Bay, Manitowoc, Sheboygan, Sturgeon Bay, Watertown, Waukesha, Marinette, Wis.-Menominee, Mich.; Brainerd, Grand Rapids, Little Falls, Virginia-Eveleth, Minn.; Escanaba, Houghton-Hancock, Iron Mountain, Ironwood, Marquette, Mich.; and Waukegan, Ill., all on route 86, because of the inadequacy of the airports.

E–1145 fixes the mail rate to be paid Caribbean-Atlantic Airlines over its entire system. (Issued with an opinion—Jan. 22.)

E–1146 denies petition of Atlantic Airlines to reopen proceedings, and to defer consideration and consolidate proceedings, in the Boston-New York-Atlanta-New Orleans Case and the Middle Atlantic Area Case (Jan. 27).

E–1147 approves interlocking relationship existing as a result of the holding by T. E. Irvine of certain positions in Northwest Airlines and Gopher Aviation (Jan. 23).

E–1148 approves interlocking relationship existing as a result of the holding by Ferdinand Eberstadt of certain positions in Braniff Airways and American Barge Line Co. (Jan. 23).

E–1149 amends order E–1048 and permits certain parties to intervene in the Additional Service in New England States Case (Jan. 26).

E–1150 approves an agreement between American Airlines and Aktiebolaget Aerotransport relating to training of personnel (Jan. 27).

ICAO Geneva Meeting Will Endeavor To Cut Delay at Nat'l Borders

To facilitate international air transport by permitting the unimpeded passage of aircraft and the traffic they carry across national borders is the prime purpose of an International Civil Aviation Organization divisional meeting to be held in Geneva, Switzerland, on May 17, 1948, according to an announcement made recently at ICAO Headquarters, Montreal, Canada. The meeting will climax several years of effort initiated by the organization to reduce the great number of governmental customs, immigration, and public health requirements that hinder and delay both passengers and freight at border crossing points.

Headway Made.—ICAO officials point out that certain of the objectives of the Facilitation Division have already been partially achieved. The time taken in passenger handling at international airports has been cut down, although advance formalities, including the provision of necessary passports and visas, still remain a time-consuming process. Since the inception of the organization's facilitation program, joint action committees of member governments, as well as intragovernmental action groups, have been set up to simplify border crossings.

Facilitation recommendations designed to cut the amount of paper work required of the airline operators at customs airports have been substantially implemented, according to information received at ICAO headquarters. Twenty-two nations have already accepted these standardized clearance procedures and 12 more have announced their intention to do so at an early date.

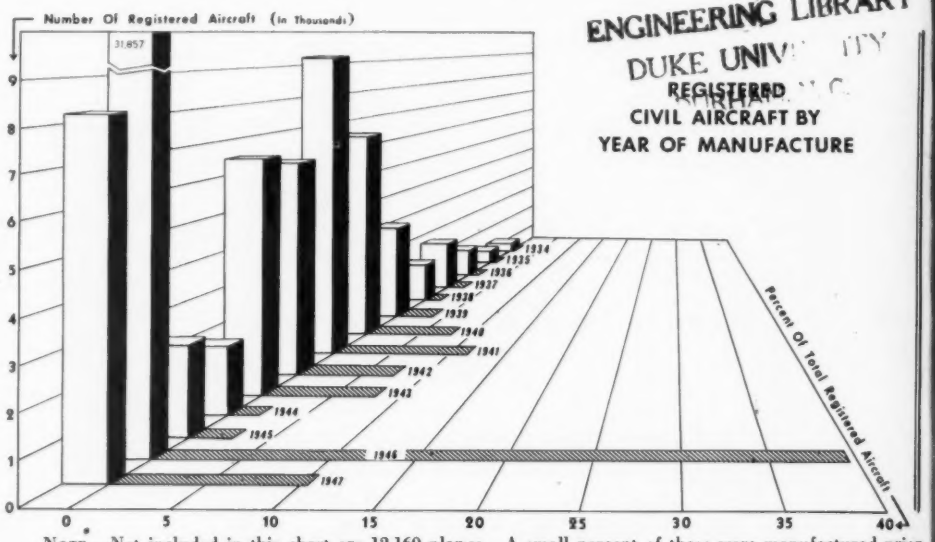
Affects All Modes of Travel.—Certain of the ICAO facilitation recommendations affect all modes of international transport generally, as well as aviation particularly. Included are procedures which would do away with the entrance visa for businessmen and tourists, omit any examination for passengers in direct transit, and eliminate many of the existing formalities concerning currency exchange and the shipment of cargo. The elimination of the entrance visa for temporary travellers was considered last April by the United Nations Preparatory Conference on Passport and Frontier Facilities which decided that, although it was not practicable for general adoption at that time because of international conditions, the ICAO system should be adopted as between any pairs of States willing to abolish entrance visa requirements.

Since the United Nations' meeting, the Inter-American Congress of Tourist and Immigration Directors has recommended that the nations of the Western Hemisphere replace these visa requirements with an Inter-American Tourist Card. Except for nomenclature and minor details, this follows closely the proposals accepted when the Facilitation Division was first organized in 1946.

Schedule of ICAO Meetings

Aeronautical Maps and Charts Division (MAP) (Brussels)	Mar. 8, 1948
Personnel Licensing Division (PEL) (Montreal)	Mar. 30, 1948
Rules of the Air and Air Traffic Control Division (RAC) (Montreal)	Apr. 20, 1948
North Atlantic Regional Meeting (Paris)	May 4, 1948
Facilitation Division (FAL) (Geneva)	May 17, 1948
European - Mediterranean Regional Meeting (Paris)	May 20, 1948
Second Assembly (Geneva)	June 1, 1948
North Pacific Regional Meeting (Honolulu or Vancouver)	July 13, 1948
African-Indian Ocean Regional Meeting (Site not yet determined)	Aug. 24, 1948
Operations Division (OPS) (Montreal)	Sept. 8, 1948
Airworthiness Division (AIR) (Montreal)	Sept. 21, 1948
South East Asia Regional Meeting (New Delhi)	November

New Statistical Study Contains Data On Aircraft Registered With CAA



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NOTE.—Not included in this chart are 12,160 planes. A small percent of these were manufactured prior to 1934. No manufacturing dates are reported for the remainder, due to lack of airworthiness certificates.

A statistical study of registered civil aircraft, useful to aircraft and accessory manufacturers, maintenance organizations, and airport operations, has been issued by the Civil Aeronautics Administration.

The 92,644 aircraft registered with the CAA on November 1, 1947, are covered in the study. Tabulated alphabetically by manufacturer are the Specification Number (if certificated), model, designation, engine make, take-off horsepower, and number of aircraft registered.

Number and Type of Aircraft.—From the study an accessory manufacturer, for example, can determine the number of aircraft of any given type which might constitute a market for his product. A fixed base operator might use the information to estimate the probable demand for maintenance among the various types of aircraft.

The study, made by the Aviation Statistics Service of the Office of Aviation Information, turned up some interesting data about old aircraft. The oldest aircraft still registered is a Thomas Morse "TM3 Scout" with a LeRhone engine, built in 1917.

Three Curtiss "Jennies" of World War I fame are still registered, together with a Curtiss Oriole of 1919 vintage. These aircraft are not necessarily in flying condition, and one is known to be owned by a museum, but their registration has been maintained by the owners in CAA records.

Aircraft by States.—The number of registered aircraft by States is shown in the study, and the numbers of single, two-engine, three-engine, and four-engine craft are summarized. A special type of visual graph shows in easily-grasped form the number of registered aircraft added each year, and the percentage increase for each year.

Copies of the report, called Statistical Study of Registered Civil Aircraft as of November 1, 1947, are available without charge from the Office of Aviation Information, Civil Aeronautics Administration, Washington 25, D. C.

WNA Traffic for January Tops Same Mo. in 1946–47

January air line passenger traffic at Washington National Airport was heavier than during the same month in either 1946 or 1947. Almost 65,700 passengers were handled by the air lines serving this airport, including 32,700 passenger departures and 33,000 passenger arrivals.

Total air liner arrivals and departures dropped 5 percent below December (7,577 against 8,015). Other aircraft traffic operations also declined. Military operations were down 4 percent (1,069 vs. 1,114); itinerant operations declined 15 percent (from 1,349 to 1,152), and local aircraft operations fell 30 percent (630 to 441). Combined aircraft traffic operations for January (air carrier, military, local, and itinerant) totaled 10,239 arrivals and departures—an average of 330 take-offs and landings each 24 hours.

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